



Humasis

Innovative diagnostic kits for people's better lives.

GLOBAL

Beyond Korea and around the world,
Humasis is rapidly growing
to become the global company

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Company Introduction

Humasls was founded as a bio-venture company that develops, manufactures and promotes innovative in-vitro diagnostic products in 2000. Thanks to our dedication and effort specializing in R&D, we keep developing and launching the new products every year and have fulfilled the customers' need for high quality of products. As a result, Humasls has been certified ISO13485 as well as GMP, which proves that all of Humasls products are manufactured under the strict quality control.

In addition to our technology and the know-how, Humasls has been communicating and working with several social networking such as pharmaceutical companies, hospitals and universities to share the knowledge and contribute more.

We believe our passion to our vision, "innovative products for people's better life", will lead to provide the excellent medical and health care system.

Company History

2000

06 - Founded Company (Kwon Institute of Technology Innovation B/D, Suwon University).

09 - Moved Head Office (345-1, Dangeong-dong, Gunpo-si, Gyeonggi-do).

12 - Executed Government (MOCIE) Project of "Development of Biomarkers and Detection System for Evaluation of Chemical Exposure".

12 - Launched Pregnancy Test.

12 - Approved Manufacturing Certificate of In-vitro Diagnostics (KFDA).

2001

05 - Launched Ovulation Tests.

08 - Applied Inexscreen, "Diagnostic Device for Pregnancy and Ectopic Pregnancy Screening" to World Patent (PCT/KR01/01365).

2002

03 - Registered Trade Mark, "HUMASIS" (No. 40-2001-0043375).

03 - Allied with Han-Ah Pharmaceutical Co Ltd.

07 - Acquired Certificate of CLEAN WORKPLACE (KOSHA).

11 - Launched Hepatitis B Virus Test.

2003

03 - Established Humasis Research Center.

03 - Launched Acute Myocardial Infarction Tests (Troponin I, Myoglobin, CK-MB).

04 - Launched Inexscreen.

08 - Launched Menopause Test.

10 - Registered Patent of Inexscreen in Korea (No. KP0403871).

2004

03 - Launched HCV Test and HIV 1/2 Test.

04 - ISO 9001 Certified.

04 - Launched Botulinum A/B/E Triple Test and Anthrax PA/LF Test.

07 - Launched PSA Test.

2005

03 - Entered into Partnership with Yuhan Corporation for Development of New Diagnostic Platform Technology.

04 - Launched AFP Test.

2006

04 - Launched Acute Myocardial Infarction Tests (Single, Double, Triple Plus).

05 - ISO 13485 Certified.

06 - Launched FOB Test.

07 - Executed Government Project of "The Development of web-based POCT system", supported by Korea Ministry of Commerce, Industry and Energy.

Registered Patent of Inexscreen in China (No. ZL01814071.8)

09 - CE Mark certified (5 Products with Cardiac Troponin I)

2007

04 - Transfer of the Head Office/Factory (Shinwon Vision Tower, Anyang-si, Hoge-dong, Korea).

06 - INNO BIZ Certified.

08 - CE Mark certified (FSH & LH self tests)

2008

01 - CE Mark Certified (CK-MB & Myoglobin)

02 - Patented Inexscreen (for screening Ectopic Pregnancy) in US (Patent No.: 7332350)

06 - Chosen by SMBA (Small & Medium Business Administration) for Government Project

10 - CE Mark Certified (PSA Card-ListB)

2009

01 - CE Mark Certified (CEA, H.pylori, Syphilis)

12 - Certified KGMP

2010

01 - Launched Influenza A/B antigen Test

02 - CE Mark certified (HUBI-QUAN pro®, HUBI TNI, HUBI 3-in-1)

04 - Launched quantitative strip reader, HUBI-QUAN pro®

05 - Chosen by SMBA (Small & Medium Business Administration) for eco-friendly technology at facilities.

07 - Launched Malaria P.f/Pan Antigen Test

2011

04 - Launched Rapid Flu™ - Influenza antibody Test

05 - Launched Malaria P.f/P.v. Test & Malaria P.f Antigen Test

07 - Launched Dengue IgG/IgM test

09 - Registered patent of 'Diagnostic device for measuring the ratio of Proteins with similar structure' in Korea (No. KP1068612)

2012

01 - Registered Patent of 'Diagnostic device for measuring the ratio of Proteins with similar structure' in US (No. 8101369)

03 - Launched Urine analyzer, U-AQ core and U-AQ smart and strip

05 - Launched Dengue NS1 antigen Test

12 - Executed government R&D project for Malaria P.f.(pLDH) and G6PD diagnosis.

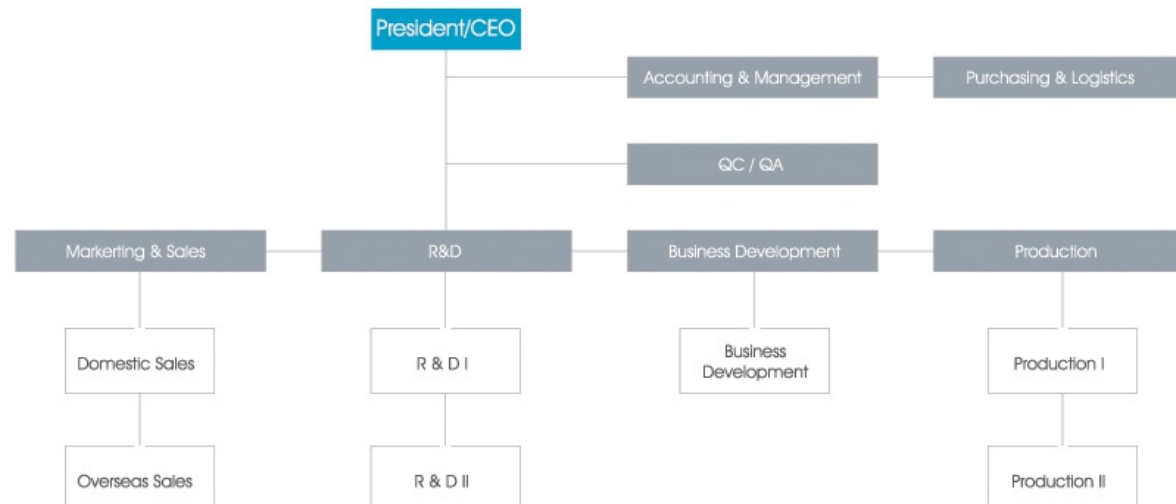
2013

03 - Launched *Helicobacter pylori* Antigen test and RSV antigen Test

09 - Select as the company to develop the device and the monitoring system based on quantitative system by Ministry of trade, industry & energy

09 - Launched Dengue Combo (NS1 and IgG/IgM) Test

Organization chart



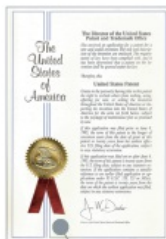
GLOBAL

Dream of becoming the best and global Healthcare company.
Humasis is realizing its dream.



3
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Certification



US Patent



China Patent



CE



ISO 13485



INNO-BIZ



GMP

PRODUCTS LIST

| Product Name | Cat.No. | Format | Package | Measuring range | Specimen | Shelf life |
|-----------------------------------|------------|-----------------------------|--------------|--|--------------------------------|------------|
| Quantitative POCT Analyzer | | | | | | |
| HUBI QUAN PRO | AHQ-8001 | Quantitative assay platform | | | | |
| HUBI Troponin I | ACTI-8025 | Cassette | 25tests/case | 0.05~20ng/mL | Whole blood or Plasma | 12Months |
| HUBI CKMB | ACCK-8025 | Cassette | 25tests/case | 1.5~30ng/mL | Whole blood or Plasma | 12Months |
| HUBI Myoglobin | ACMG-8025 | Cassette | 25tests/case | 20~350ng/mL | Whole blood or Plasma | 9Months |
| HUBI BNP | ABNP-8025 | Cassette | 25tests/case | 25~800ng/mL | Whole blood or Plasma | 12Months |
| HUBI DUO(Tni/CKMB) | ACDC-8025 | Cassette | 25tests/case | 0.05~20ng/mL 1.5~30ng/mL | Whole blood or Plasma | 12Months |
| HUBI Cardiac 3 in 1 | ACTM-8025 | Cassette | 25tests/case | Tni-0.05~20ng/mL CKMB-1.5~30ng/mL Myo-20~350ng/mL | Whole blood or Plasma | 12Months |
| HUBI 3 in 1(B) | ACTCB-8025 | Cassette | 25tests/case | Tni-0.05~20ng/mL CKMB-1.5~30ng/mL BNP- 25~800ng/mL | Whole blood or Plasma | 12Months |
| HUBI hCG | ANP-8025 | Cassette | 25tests/case | 5~500mIU/mL | Whole blood | 12Months |
| HUBI LH | AOV-8025 | Cassette | 25tests/case | 1.0~200ng/mL | Finger Puncture or Whole blood | 12Months |
| HUBI FSH | AME-8025 | Cassette | 25tests/case | 1.0~200ng/mL | Finger Puncture or Whole blood | 12Months |
| HUBI BPHScreen | ABPH-8025 | Cassette | 25tests/case | T-PSA-0.4~20ng/mL T-PSA-0.05~10ng/mL | Finger Puncture or Whole blood | 12Months |
| HUBI Total PSA | APSA-8025 | Cassette | 25tests/case | 0.4~20ng/mL | Finger Puncture or Whole blood | 12Months |
| HUBI Free PSA | AFSA-8025 | Cassette | 25tests/case | 0.05~10ng/mL | Finger Puncture or Whole blood | 12Months |
| HUBI hsCRP | AHCRP-8025 | Cassette | 25tests/case | 0.2~50ng/mL | Finger Puncture or Whole blood | 12Months |
| HUBI CRP | ACRP-8025 | Cassette | 25tests/case | 2.5~300mg/L | Finger Puncture or Whole blood | 12Months |
| HUBI FABP | AFABP-8025 | Cassette | 25tests/case | 3~50ng/mL | Whole blood or Plasma | 18Months |
| HUBI FABP-Troponin I | AFACT-8025 | Cassette | 25tests/case | FABP: 3~50ng/mL Tni: 0.05~20ng/mL | Whole blood or Plasma | 12Months |

| Product Name | Cat.No. | Format | Package | Detection limit | Specimen | Shelf life |
|--------------|---------|--------|---------|-----------------|----------|------------|
|--------------|---------|--------|---------|-----------------|----------|------------|

CE FERTILITY

Pregnancy Tests - hCG(Human Chorionic Gonadotropin)

| | | | | | | |
|-----------|-----------|-----------|---------------|----------|--------------|----------|
| after | ANP-2001 | Midstream | 1test/case | 25mIU/mL | Urine | 24Months |
| hCG Card | ANP-7025 | Cassette | 25tests/case | 25mIU/mL | Urine | 24Months |
| hCG Strip | ANP-3001 | Strip | 1test/case | 25mIU/mL | Urine | 24Months |
| | ANP-3100 | Strip | 100tests/case | 25mIU/mL | Urine | 24Months |
| hCG Combo | ANPC-7025 | Cassette | 25tests/case | 25mIU/mL | Urine, Serum | 24Months |

Ovulation Tests - LH(Luteinizing Hormone)

| | | | | | | |
|----------|----------|-----------|---------------|----------|-------|----------|
| before | AOV-2005 | Midstream | 5tests/case | 40mIU/mL | Urine | 24Months |
| LH Card | AOV-7025 | Cassette | 25tests/case | 40mIU/mL | Urine | 24Months |
| LH Strip | AOV-3001 | Strip | 1test/case | 40mIU/mL | Urine | 24Months |
| | AOV-3100 | Strip | 100tests/case | 40mIU/mL | Urine | 24Months |

Menopause Tests - FSH(Follicle Stimulating Hormone)

| | | | | | | |
|--------------------|----------|-----------|--------------|----------|-------|----------|
| continue Midstream | AME-2001 | Midstream | 1test/case | 25mIU/mL | Urine | 24Months |
| continue Card | AME-7025 | Cassette | 25tests/case | 25mIU/mL | Urine | 24Months |

Abnormal Pregnancy (Ectopic or abortion)Screen

| | | | | | | |
|------------|----------|-------|--------------|----------|-------|----------|
| Inexscreen | AEP-5010 | Combo | 10tests/case | 25mIU/mL | Urine | 22Months |
|------------|----------|-------|--------------|----------|-------|----------|

CE AMI

Acute Myocardial Infarction Tests

Triple Marker Test (Troponin I / Myoglobin / CK-MB)

| | | | | | | |
|---------------------------|------------|----------|--------------|---------------|----------------------------|----------|
| Cardiac Triple Test Plus | ACTM-7010 | Cassette | 10tests/case | 0.5,50,5ng/mL | Whole blood, Serum, Plasma | 18Months |
| Double Marker Test | | | | | | |
| Troponin I/Myoglobin | ACDM-7010 | Cassette | 10tests/case | 0.5,50ng/mL | Whole blood, Serum, Plasma | 18Months |
| Troponin I/CK-MB | ACDC-7010 | Cassette | 10tests/case | 0.5,5ng/mL | Whole blood, Serum, Plasma | 18Months |
| FABP/Troponin I | AFACT-7020 | Cassette | 20tests/case | 6, 0.5ng/mL | Whole blood, Serum, Plasma | 18Months |

Single Marker Test

| | | | | | | |
|----------------|------------|----------|--------------|----------|----------------------------|----------|
| Troponin I | ACTI-7010 | Cassette | 10tests/case | 0.5ng/mL | Whole blood, Serum, Plasma | 18Months |
| Myoglobin Test | ACMG-7025 | Cassette | 25tests/case | 50ng/mL | Whole blood, Serum, Plasma | 18Months |
| CK-MB Test | ACCK-7025 | Cassette | 25tests/case | 5ng/mL | Whole blood, Serum, Plasma | 18Months |
| FABP Test | AFABP-7010 | Cassette | 10tests/case | 6ng/mL | Whole blood, Serum, Plasma | 18Months |

PRODUCTS LIST

| Product Name | Cat.No. | Format | Package | Detection limit | Specimen | Shelf life |
|--------------|---------|--------|---------|-----------------|----------|------------|
|--------------|---------|--------|---------|-----------------|----------|------------|

INFECTIOUS DISEASE

Malaria Antigen Test

| | | | | | | |
|------------------------------|-----------|----------|--------------|--------------------------------------|------------------------------|----------|
| Malaria P.f/Pan Antigen Test | AMAL-7025 | Cassette | 25tests/case | HRP-II(P.f) pLDH(P.f,P.v,P.o or P.m) | Whole blood(Finger Puncture) | 24Months |
| Malaria P.f/P.v Antigen Test | AMFV-7025 | Cassette | 25tests/case | HRP-II(P.f) pLDH(P.v) | Whole blood(Finger Puncture) | 24Months |
| Malaria P.f Antigen Test | AMPF-7025 | Cassette | 25tests/case | HRP-II(P.f) | Whole blood(Finger Puncture) | 24Months |

Dengue Test

| | | | | | | |
|-------------------------|-----------|----------|--------------|----------------------|--------------------------|----------|
| Dengue IgG/IgM Test | ADEN-7025 | Cassette | 25tests/case | IgG/IgM | Whole blood/serum/plasma | 24Months |
| Dengue NS1 Antigen Test | ADEG-7025 | Cassette | 25tests/case | NS1 Antigen | Whole blood/serum/plasma | 24Months |
| Dengue Combo Test | ADEC-5025 | Cassette | 25tests/case | IgG/IgM, NS1 Antigen | Whole blood/serum/plasma | 24Months |

Influenza A/B Test

| | | | | | | |
|----------------------------|-----------|-------|--------------|------------------------------------|--|----------|
| Influenza A/B Antigen Test | AINF-3025 | Strip | 25tests/case | Nasopharyngeal, Throat, Nasal swab | | 24Months |
|----------------------------|-----------|-------|--------------|------------------------------------|--|----------|

Respiratory Syncytial Virus Test

| | | | | | | |
|------------------|-----------|-------|--------------|-----------------|--|----------|
| RSV Antigen Test | ARSV-3025 | Strip | 25tests/case | NPS, Nasal Swab | | 24Months |
|------------------|-----------|-------|--------------|-----------------|--|----------|

Hepatitis B Virus Tests

| | | | | | | |
|----------------------|-----------|--------------|---------------|----------|---------------|----------|
| HBsAg Card | ABSG-7025 | Cassette | 25tests/case | 1ng/mL | Serum, Plasma | 24Months |
| HBsAg Card, multi | ABSG-6100 | Multi device | 100tests/case | 1ng/mL | Serum, Plasma | 24Months |
| HBsAg Strip | ABSG-3100 | Dip strip | 100tests/case | 1ng/mL | Serum, Plasma | 24Months |
| Anti-HBs Card | ABSB-7025 | Cassette | 25tests/case | 30mIU/mL | Serum, Plasma | 24Months |
| Anti-HBs Card, multi | ABSB-6100 | Multi device | 100tests/case | 30mIU/mL | Serum, Plasma | 24Months |
| Anti-HBs Strip | ABSB-3100 | Dip strip | 100tests/case | 30mIU/mL | Serum, Plasma | 12Months |

Hepatitis C Virus(HCV) Test : HCV Antibody

| | | | | | | |
|-----------------|----------|--------------|---------------|----------------------------|--|----------|
| HCV Card | ACB-7030 | Cassette | 30tests/case | Whole blood, Serum, Plasma | | 18Months |
| HCV Card, multi | ACB-6100 | Multi device | 100tests/case | Whole blood, Serum, Plasma | | 18Months |

Human Immunodeficiency Virus(HIV) 1/2 Antibody Tests

| | | | | | | |
|-----------------|----------|--------------|---------------|----------------------------|--|----------|
| HIV Card | AIB-7030 | Cassette | 30tests/case | Whole blood, Serum, Plasma | | 18Months |
| HIV Card, multi | AIB-6100 | Multi device | 100tests/case | Whole blood, Serum, Plasma | | 18Months |

H-pylori Rapid Tests

| | | | | | | |
|-----------------------|-----------|--------------|---------------|----------------------------|--|----------|
| H-pylori Card | AHPY-7030 | Cassette | 30tests/case | Whole blood, Serum, Plasma | | 24Months |
| H-pylori Card, multi | AHPY-6100 | Multi device | 100tests/case | Whole blood, Serum, Plasma | | 24Months |
| H-pylori Antigen Test | AHPG-7020 | Cassette | 20Tests/case | Stool | | 24Months |

Syphilis Rapid Tests

| | | | | | | |
|----------------------|----------|--------------|---------------|---------------|--|----------|
| Syphilis Card | ASB-7030 | Cassette | 30tests/case | Serum, Plasma | | 24Months |
| Syphilis Card, multi | ASB-6100 | Multi device | 100tests/case | Serum, Plasma | | 24Months |

Chlamydia Rapid Tests

| | | | | | | |
|----------------|-----------|----------|--------------|--------------------------|--------------|----------|
| Chlamydia Test | ACHG-7025 | Cassette | 25tests/case | 2X10 ³ IFU/mL | Vaginal Swab | 18Months |
|----------------|-----------|----------|--------------|--------------------------|--------------|----------|

TUMOR

Tumor Marker Tests

Carcinoembryonic Antigen(CEA)Test

| | | | | | | |
|-----------------|-----------|--------------|---------------|--------|----------------------------|----------|
| CEA Card | ACEA-7030 | Cassette | 30tests/case | 5ng/mL | Whole blood, Serum, Plasma | 14Months |
| CEA Card, multi | ACEA-6100 | Multi device | 100tests/case | 5ng/mL | Whole blood, Serum, Plasma | 14Months |

Fecal Occult Blood(FOB) Test

| | | | | | | |
|-----------------|-----------|--------------|--------------|---------|-------|----------|
| FOB Test | AFOB-7020 | Cassette | 20tests/case | 50ng/mL | Stool | 18Months |
| FOB Test, multi | AFOB-6050 | Multi device | 50tests/case | 50ng/mL | Stool | 18Months |

Alpha-Fetoprotein(AFP) Test

| | | | | | | |
|-----------------|-----------|--------------|---------------|---------|---------------|----------|
| AFP Card | AAFP-7030 | Cassette | 30tests/case | 20ng/mL | Serum, Plasma | 24Months |
| AFP Card, multi | AAFP-6100 | Multi device | 100tests/case | 20ng/mL | Serum, Plasma | 24Months |

Prostate Specific Antigen(PSA) Test

| | | | | | | |
|-----------------|-----------|--------------|---------------|--------|----------------------------|----------|
| PSA Card | APSA-7030 | Cassette | 30tests/case | 4ng/mL | Whole blood, Serum, Plasma | 18Months |
| PSA Card, multi | APSA-6100 | Multi device | 100tests/case | 4ng/mL | Whole blood, Serum, Plasma | 18Months |

COTININE TEST

Cotinine Test

| | | | | | | |
|----------|----------|----------|--------------|----------|-------|----------|
| Nicofind | ANC-7025 | Cassette | 25tests/case | 200ng/mL | Urine | 24Months |
|----------|----------|----------|--------------|----------|-------|----------|

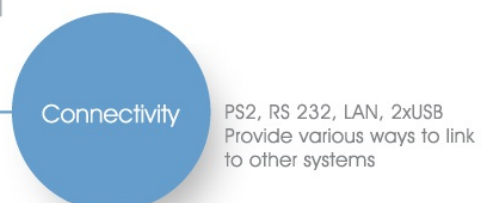
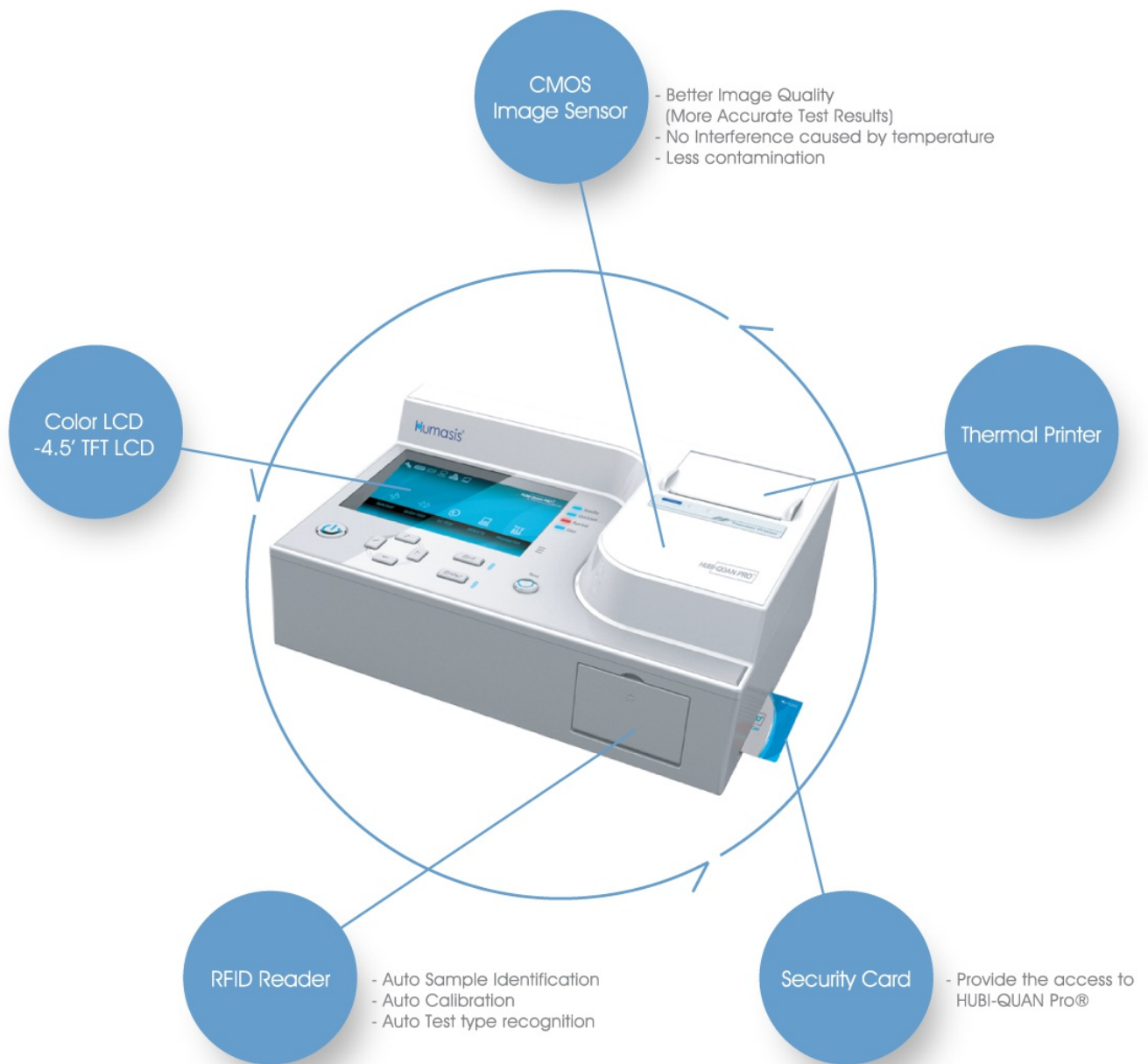
Urinalysis Chemistry

| | | | | | |
|--|---------------------------------------|-----------------|-------|----------|--|
| U-AQ core / smart | Semi-Quantitative urinalysis analyzer | | | | |
| U-AQ 2GP / 3 / 3GK / 4 / 4SG / 5 / 10 / 11 | Strip | 100tests/bottle | Urine | 24Months | |



Point-Of-Care Testing Analyzer

Reduce Turnaround Time(TAT) & Length of Stay(LOS)



Point-Of-Care Testing Analyzer

Test Procedure



1. Insert device and drop the sample



2. Press Test button



3. Read result

General information

- Dimension : 255 (W) x 178(D) X 92.7(H) mm
- Weight : 1.35kg
- Built-in Printer and HIS/LIS Interface for reporting Result

ACCURATE and EASY

- A quantitative results
- RFID System : Auto Calibration, Cartridge information
- Operational System : Windows XP

FAST

- Be able to check the test result within 10-15 minutes
- Panel Test : Maximum 6 different parameters by 1 device
- Reduce the Turnaround Time for hospital
- Immediate and proper treatment is available with the test result.

ENHANCED QC

- Liquid QC : Verification of proper reagent handling and storage.
- IQC : Reusable test device with multiple levels of color.
Monitors for Alignment and color performance

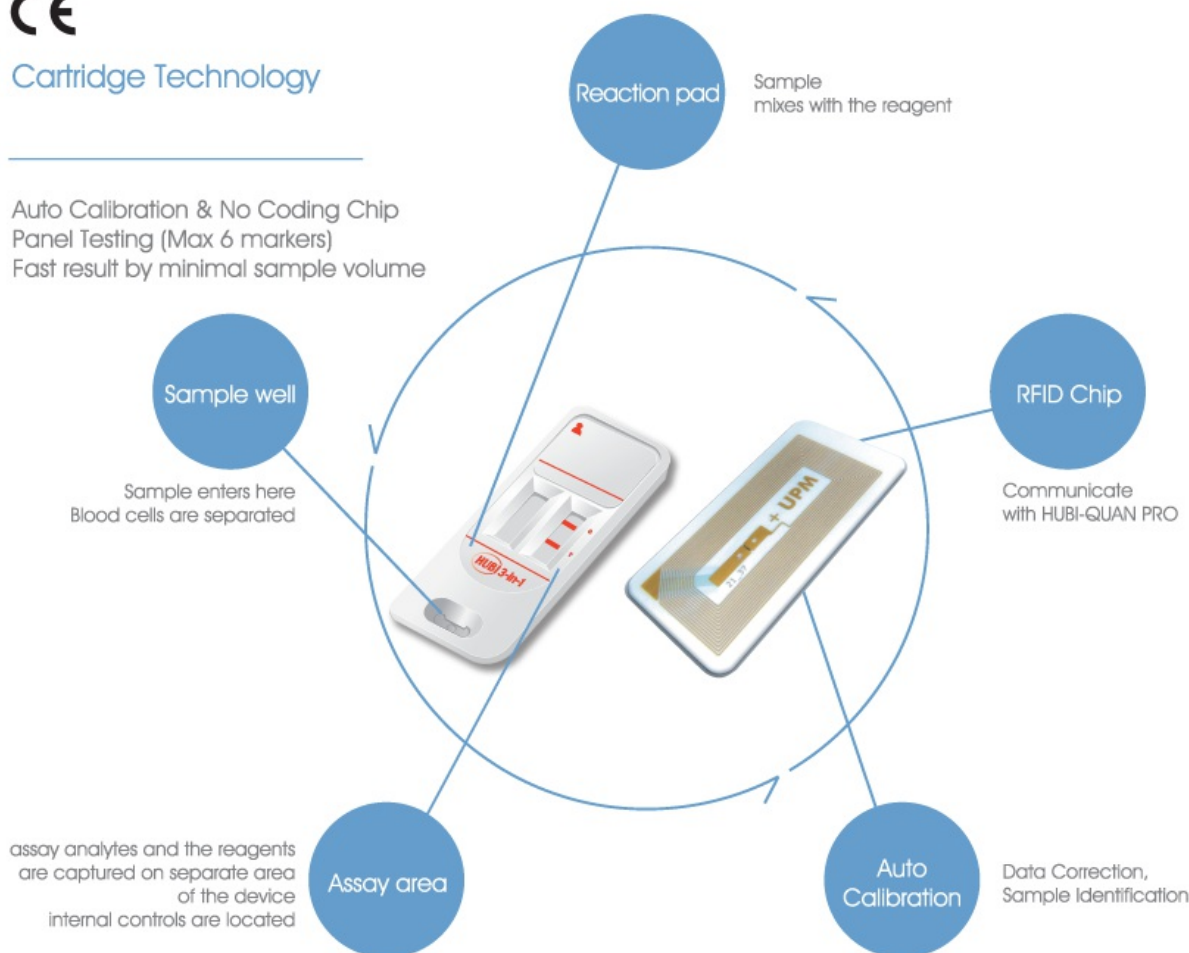
Ordering information

| Product name | Catalogue No. | Type |
|----------------|---------------|------|
| HUBI-QUAN Pro® | AHQ-8001 | Unit |



Cartridge Technology

Auto Calibration & No Coding Chip
Panel Testing (Max 6 markers)
Fast result by minimal sample volume



Emergency Testing

Rapid - Result in 15 minutes
Simple - Only 3 easy steps
Practical - Allow fast patient disposition

HUBI hCG

- Reduce Turnaround Time(TAT) and length of stay(LOS)
- Maximize the efficiency by using Whole Blood

HUBI Troponin I

- A standard for the diagnosis of Myocardial Infarction(MI)

HUBI DUO(TnI/CK-MB)

- Significantly improve the positive predicted value with two specific markers

HUBI Cardiac 3 in 1 (TnI/CK-MB/Myo)

- Provide better risk stratification for diagnosis of Acute Myocardial Infarction (AMI)

General information

| Product name | Format | Package | Specimen | Sample volume | Measuring range |
|----------------------|----------------------|--------------|-----------------------|---------------|---|
| HUBI-hCG | Cassette(ANP-8025) | 25Tests/case | Whole blood or plasma | 100ul | 5~500mIU/mL |
| HUBI-Troponin I | Cassette(ACTI-8025) | 25Tests/case | Whole blood or plasma | 100ul | 0.05~20ng/mL |
| HUBI-CK-MB | Cassette(ACCK-8025) | 25Tests/case | Whole blood or plasma | 100ul | 1.5~30ng/mL |
| HUBI-Myoglobin | Cassette(ACMG-8025) | 25Tests/case | Whole blood or plasma | 100ul | 20~350ng/mL |
| HUBI-FABP | Cassette(AFABP-8025) | 25Tests/case | Whole blood or plasma | 100ul | 3~50ng/mL |
| HUBI FABP-Troponin I | Cassette(AFACT-8025) | 25Tests/case | Whole blood or plasma | 200ul | TnI : 0.05~20ng/mL FABP : 3~50ng/mL |
| HUBI-DUO(TnI/CK-MB) | Cassette(ACDC-8025) | 25Tests/case | Whole blood or plasma | 200ul | TnI : 0.05~20ng/mL CKMB : 1.5~30ng/mL |
| HUBI-Cardiac 3 in 1 | Cassette(ACTM-8025) | 25Tests/case | Whole blood or plasma | 200ul | TnI : 0.05~20ng/mL CKMB : 1.5~30ng/mL Myo : 20~350ng/mL |
| HUBI-3 in 1(B) | Cassette(ACCB-8025) | 25Tests/case | Whole blood or plasma | 200ul | TnI : 0.05~20ng/mL CKMB : 1.5~30ng/mL BNP : 25~800ng/mL |

Point-Of-Care Testing

Early detection, leading to early treatment, can have a profound impact on your patients health.

One step, One device and Quantitative

Urology(Tumor)

BPH(Benign Prostatic Hyperplasia, f-PSA/t-PSA Ratio)

Total PSA, Free PSA(Prostate Specific Antigen)

Gynecology(Fertility)

PCOS(Polycystic Ovary Syndrome, LH/FSH Ratio)*

Ovulation, Menopause

Pregnancy, Abnormal Pregnancy(Abortion/Ectopic)*

General information

| Product name | Format | Package | Specimen | Sample volume | Measuring range |
|----------------|---------------------|--------------|--------------------------------|---------------|---|
| HUBI-BPHScreen | Cassette(ABPH-8025) | 25Tests/case | Finger puncture or Whole blood | 30ul | T-PSA : 0.4~20ng/mL F-PSA : 0.05~10ng/mL |
| HUBI-Total PSA | Cassette(APSA-8025) | | | | 0.4~20ng/mL |
| HUBI-Free PSA | Cassette(AFSA-8025) | | | | 0.05~10ng/mL |
| HUBI-LH | Cassette(AOV-8025) | | | | 1.0~200mIU/mL |
| HUBI-FSH | Cassette(AME-8025) | | | | 1.0~200mIU/mL |
| HUBI-hCG | Cassette(ANP-8025) | | Whole blood | 100ul | 5~500mIU/mL |

* Developing Item : HUBI PCOScreen/HUBI-TSH/HUBI-Free T4/HUBI-Malaria

Cardiovascular Testing

Accelerate diagnosis and treatment initiation

Reduce re-admission rate for cardiovascular patients and related costs

HUBI-BNP

Empowering immediate Heart Failure treatment

HUBI-D-Dimer*

Exclusion of deep vein thrombosis and pulmonary embolism

HUBI-hsCRP

Useful in predicting a patient's risk for cardiovascular disease, heart attacks and strokes

HUBI-FABP

More sensitive and reliable for early detection of MI and unstable angina

General information

| Product name | Format | Package | Specimen | Sample volume | Measuring range |
|---------------|----------------------|--------------|-------------|---------------|-----------------|
| HUBI-BNP | Cassette(ABNP-8025) | 25Tests/case | Whole blood | 100ul | 25~800pg/mL |
| HUBI-D-Dimer* | Cassette(ADIM-8025) | | | 5ul | 200~5,000ng/mL |
| HUBI-hsCRP | Cassette(AHCRP-8025) | | | 30ul | 0.2~50ng/mL |
| HUBI-CRP | Cassette(ACRP-8025) | | | 30ul | 2.5~300mg/L |
| HUBI-FABP | Cassette(AFBP-8025) | | | 100ul | 3~50ng/mL |

* Developing Item



FERTILITY

Pregnancy Test : hCG(Human Chorionic Gonadotropin) Test
Ovulation Test : LH(Luteinizing Hormone) Test
Menopause Test : FSH(Follicle Stimulating Hormone) Test

Pregnancy Test:hCG(Human Chorionic Gonadotropin) Test

hCG is glycoprotein hormone secreted by the placenta shortly after implantation. In normal pregnancy, hCG can be detected in both urine and serum as early as 7 to 10 days after fertilization. The appearance of hCG and its subsequent rapid rise in urine and serum after conception during early gestational growth makes it an excellent marker.

General Information

- Simple & Easy : Result in 5 minutes & one step procedure
- Excellent performance : 25mIU/mL of detection limit
: >99% clinical sensitivity;specificity;accuracy
- Suitable for early pregnancy test

Ovulation Test:LH(Luteinizing Hormone) Test

Ovulation is the release of an egg from ovary. Luteinizing hormone(LH) which stimulates ovulation is suddenly increased(LH surge) a day before ovulation. Because the few days around ovulation are the most likely time to be pregnant, it is very important to find the time when the women ovulate. Urine LH detection is very helpful way to be pregnant.

General Information

- Fast & Easy : Result in 5 minutes & one step procedure
- Excellent performance : 40mIU/ml of detection limit
- Standardization with WHO international reference standards : NIBSC, 2 IS 80/552

Menopause Test:FSH(Follicle Stimulating Hormone) Test

In women, elevated level of FSH is associated with the symptoms and stages of menopause. FSH levels are dependent upon the menstrual cycle, but usually remain below 15mIU/mL. If FSH levels remain elevated at 25mIU/mL or greater during the entire cycle, this is the evidence of menopause.

General Information

- Quick & Simple : Result in 10 minutes & one step procedure
- Excellent performance : 25mIU/ml analytical sensitivity
: >96% clinical sensitivity;specificity;accuracy

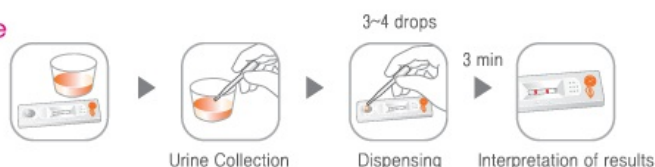


Pregnancy Tests hCG Test



| Product name | Package | Detection limit | Specimen | Shelf life | Interpretation of results |
|-----------------------------|-----------------------------------|-----------------|--------------|------------|---------------------------|
| after Midstream(ANP-2001) | 1 test/case | 25mIU/mL | Urine | 24 Months | Positive |
| hCG Card Cassette(ANP-7025) | 25 tests/case | 25mIU/mL | Urine | 24 Months | |
| hCG Strip | Strip(ANP-3001) 1 test/case | 25mIU/mL | Urine | 24 Months | Negative |
| | Strip(ANP-3100) 100 tests/case | 25mIU/mL | Urine | 24 Months | |
| | Strip(ANP-3200) 200 tests/case | 25mIU/mL | Urine | 24 Months | Invalid |
| hCG Combo (ANPC-7025) | 25 tests/case | 25mIU/mL | Urine, Serum | 24 Months | |

Test Procedure Cassette



Midstream



Ovulation Tests LH Test



| Product name | Package | Detection limit | Specimen | Shelf life | Interpretation of results |
|----------------------------|-----------------------------------|-----------------|----------|------------|---------------------------|
| before Midstream(AOV-2005) | 5 tests/case | 40mIU/mL | Urine | 24 Months | Positive |
| LH Card Cassette(AOV-7025) | 25 tests/case | 40mIU/mL | Urine | 24 Months | |
| LH Strip | Strip(AOV-3001) 1 test/case | 40mIU/mL | Urine | 24 Months | Negative |
| | Strip(AOV-3100) 100 tests/case | 40mIU/mL | Urine | 24 Months | |
| | Strip(AOV-3200) 200 tests/case | 40mIU/mL | Urine | 24 Months | Invalid |

Test Procedure Cassette



Midstream

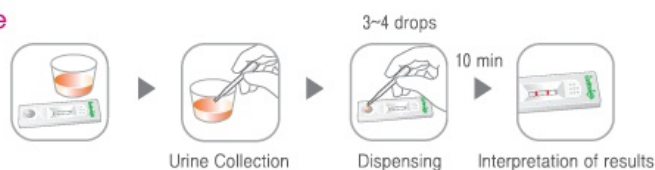


Menopause Tests FSH Test



| Product name | Package | Detection limit | Specimen | Shelf life | Interpretation of results |
|----------------------------------|---------------|-----------------|----------|------------|---------------------------|
| continue Midstream(AME-2001) | 1 test/case | 25mIU/mL | Urine | 24 Months | Positive |
| continue Card Cassette(AME-7025) | 25 tests/case | 25mIU/mL | Urine | 24 Months | |
| | | | | | Negative |
| | | | | | Invalid |

Test Procedure Cassette



Midstream





Abnormal Pregnancy(Ectopic or abortion) Screening Test

Abnormal Pregnancy(Ectopic or abortion) Screening Test

In the first trimester of pregnancy women, there is high risk of failed pregnancy caused by spontaneous abortion(miscarriage) and ectopic pregnancy. The overall miscarriage rate is reported as 15~20%, which means 15~20% of recognized pregnancies result in miscarriage. But this rate can be increased up to about 60~70% when highly sensitive hCG assays are used in early pregnancy. Ectopic pregnancy is a condition in which a fertilized egg settles and grows in any location other than the inner lining of the uterus. Ectopic pregnancy occurs in about one in 50 pregnancies and remains the leading cause of pregnancy-related death in the first trimester of pregnancy. Inexscreen is a new hCG test device for screening abnormal pregnancy, ectopic and spontaneous, as well as routine pregnancy test.

General Information

- Inexscreen can detect two types of hCG isoform, intact hCG and modified hCG which is free β -hCG like isoforms and determine the molar ratio of two isoforms semi-quantitatively.
- The analytical sensitivity of intact hCG which is detected with "A" window is 25mIU/ml.

Application

- Simple pregnancy test determining whether it is pregnant or not.
- Early detection or screening of ectopic pregnancy or spontaneous abortion.
- Monitoring normal pregnancy



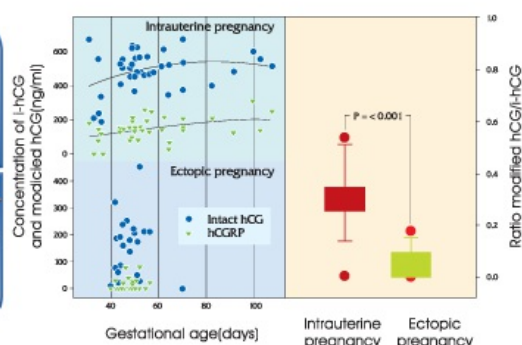
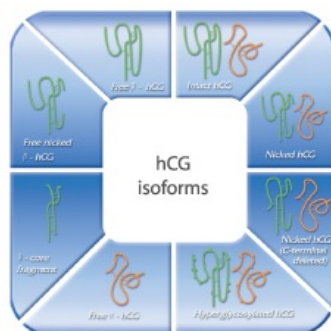
Abnormal Pregnancy Inexscreen



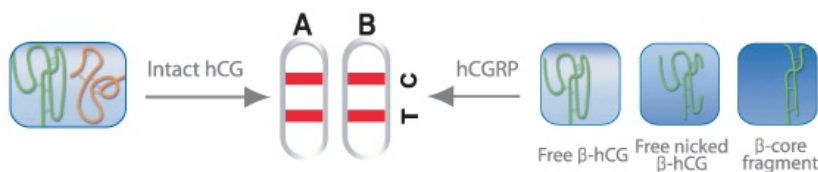
| Product name | Package | Detection limit | Specimen | Shelf life |
|----------------------------|--------------|-----------------|----------|------------|
| Inexscreen Comba(AEP-5010) | 10tests/case | 25mIU/mL | Urine | 22 Months |

Multiple hCG-related molecules (hCG isoforms) are present in serum and urine samples of pregnant women.

Ectopic & spontaneous abortion are associated with low molar ratio of free β -hCG like isoforms to intact hCG (i-hCG)



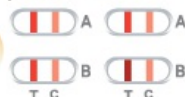
HUMASIS developed specific monoclonal antibodies to detect hCGRP & intact hCG in urine of pregnant women. The test line of window A and B detect intact hCG and hCGRP respectively.



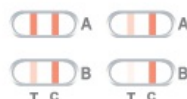
• **Negative :**
Not Pregnant



• **Positive 1 :**
Normal pregnancy
predictable



• **Positive 2 :** High risk of abnormal pregnancy (ectopic or abortion)
It is necessary to increase intensity of observation and recommended to retest within one week



How to test

| | Test Procedure | Urine hCG | Immune Reaction In T-Zone | | Time to result | Kit | Interpretation of results |
|---|-----------------|--------------------------------|---------------------------|----------|----------------|-----|---------------------------|
| | | | A window | B window | | | |
| Not pregnant | Urine 4~5 drops | No hCG | | | | | Negative |
| Normal pregnancy (IUP) (A≤B) | | Intact hCG free β hCG | | | | | Positive 1 |
| Abnormal pregnancy (EP or Abortion) (A>B) | | Intact hCG | | | | | Positive 2 |

■ Symbols : , Capture antibodies(Ab) / Detection Ab gold conjugates



AMI

Cardiac Triple Test : Cardiac Triple Test Plus

Cardiac Double Test : Troponin I/Myoglobin Double Test

Troponin I/CK-MB Double Test

Cardiac Single Test : Troponin I Test/Myoglobin Test/CK-MB Test

Acute Myocardial Infarction Tests

Acute myocardial infarction (AMI) is a medical condition that occurs when the blood supply to a part of the heart is interrupted. The resulting ischemia or oxygen shortage causes damage and potential death of heart tissue.

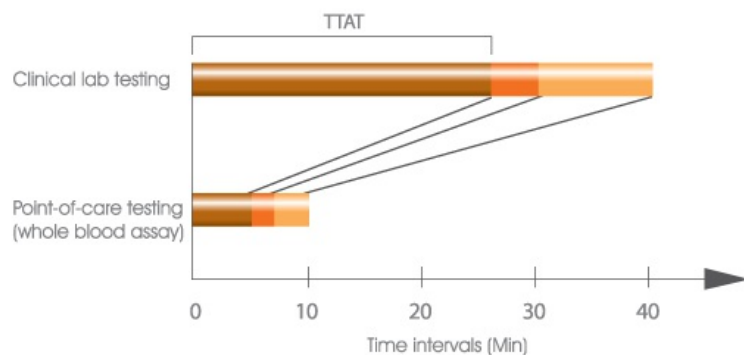
Cardiac Troponin I (cTnI) is specific and sensitive cardiac marker which is released into the bloodstream 4-6 hours after onset of symptoms and peaked levels are reached after 12-24 hours. Levels of Troponin I remain elevated for 5-7 days. Unlike cTnI, cTnT may be falsely increased when specimen is collected from renal failure patient. Therefore the use of cTnI has become the standard for the detection of myocardial cell damage and for risk stratification of chest pain patients.

While less cardiac specific than cTnI, CK-MB can complement a positive cTnI result to help clarify the time of an AMI. Reinfarction is clinically important because it is associated with incremental risk; however, it presents special diagnostic difficulties. Because increases of cTnI can be lasting for long time, the use of CK-MB may help clarify the time of the reinfarction. Myoglobin, a low molecular weight heme protein found in cardiac and skeletal muscle, is valuable in the early evaluation of chest pain patients. It may appear in the blood in abnormal levels as early as 1 to 3 hours after onset of myocardial ischemia. While Myoglobin is not specific to cardiac muscle, it is useful in the detection of AMI in the absence of skeletal muscle trauma or other factors that may be associated with a noncardiac-related increase.

AMI

General Information

Point-of-care testing achieves a short turnaround time with all-in-one device and elimination of multiple steps involved in the clinical laboratory.

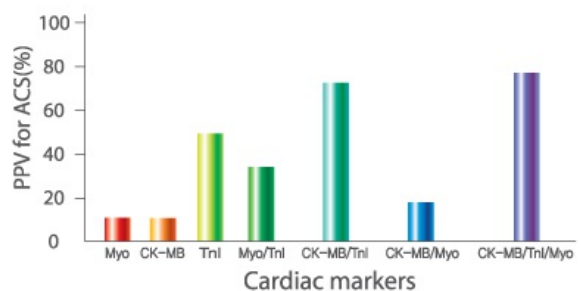


Figure; Ability of point-of-care testing for cardiac injury markers to reduce turnaround time for availability of results to ordering physicians. TTAT(therapeutic turnaround time).

Time intervals

- Test ordering > Results receipt
- Results receipt > Treatment
- Treatment > Outcome

Any of the individual cardiac markers has a low positive predictive values(PPV) for the acute coronary syndrome(ACS) but it increases if all 3 markers(myoglobin, CK-MB and Troponin I) are used.



(Ref:Kratz A, et al., Arch. Pathol. Lab Med. 2002, 126:1487-1493)



AMI

Cardiac Single Test : Troponin I Test/Myoglobin Test/CK-MB Test/FABP Test

Cardiac Double Test : Troponin I/Myoglobin Double Test

Troponin I/CK-MB Double Test

FABP/Troponin I double test

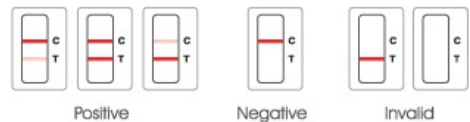
Cardiac Triple Test : Cardiac Triple Test Plus

Single Test



| Product name | Package | Analytical sensitivity | Specimen | Shelf life |
|--------------------------------------|--------------|------------------------|----------------------------|------------|
| Troponin I test Cassette (ACTI-7010) | 10tests/case | Troponin I 0.5ng/mL | Whole blood/ Serum/ Plasma | 18 Months |
| Myoglobin test Cassette (ACMG-7025) | 25tests/case | Myoglobin 50ng/mL | Whole blood/ Serum/ Plasma | 18 Months |
| CK-MB test Cassette (ACCK-7025) | 25tests/case | CK-MB 5ng/mL | Whole blood/ Serum/ Plasma | 18 Months |
| FABP test Cassette (AFABP-7010) | 10tests/case | FABP 6ng/mL | Whole blood/ Serum/ Plasma | 18 Months |

Interpretation of results



Test Procedure

Whole blood/
Sample/Plasma



Sample Collection

100µL



Dispensing

15 min



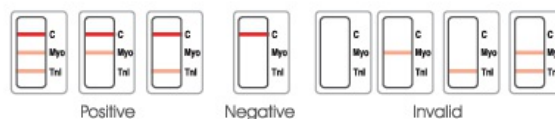
Interpretation of results

Double Test



| Product name | Package | Analytical sensitivity | Specimen | Shelf life |
|---|--------------|--|----------------------------------|------------|
| Troponin I/Myoglobin double test Cassette (ACDM-7010) | 10tests/case | Troponin I 0.5ng/mL Myoglobin 50ng/mL | Whole blood/ Serum/ Plasma | 18 Months |
| Troponin I/CK-MB double test Cassette (ACDC-7010) | 10tests/case | Troponin I 0.5ng/mL CK-MB 5.0ng/mL | Whole blood/ Serum/ Plasma | 18 Months |
| FABP/Troponin I double test Cassette (AFAC-7020) | 20tests/case | FABP 6ng/mL TnI 0.5ng/mL | Whole blood/ Serum/ Plasma | 18 Months |

Interpretation of results



Test Procedure

Whole blood/
Sample/Plasma



100µL



15 min



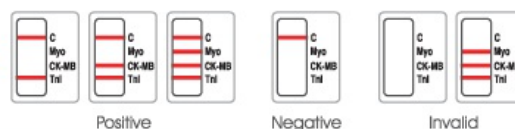
Interpretation of results

Triple Test



| Product name | Package | Analytical sensitivity | Specimen | Shelf life |
|---|--------------|--|----------------------------------|------------|
| Cardiac Triple Test Plus Cassette (ACTM-7010) | 10tests/case | Troponin I 0.5ng/mL Myoglobin 50ng/mL CK-MB 5.0ng/mL | Whole blood/ Serum/ Plasma | 18 Months |

Interpretation of results



Test Procedure

Whole blood/
Sample/Plasma



100µL



15 min



Interpretation of results

Clinical Performance

• Troponin I

| | | Quantitative Reference Test(Beckman Coulter Access) | | Total |
|--------------------|----------|---|---------------------|-------|
| | | Negative(<0.5ng/mL) | Positive(≥0.5ng/mL) | |
| Humasis Troponin I | Negative | 82 | 0 | 82 |
| | Positive | 4 | 83 | 87 |
| Total | | 86 | 83 | 169 |

Relative Sensitivity>99%, Relative Specificity 95%, Relative accuracy 97%

• CK-MB

| | | Quantitative Reference Test(Beckman Coulter Access) | | Total |
|---------------|----------|---|-------------------|-------|
| | | Negative(<5ng/mL) | Positive(≥5ng/mL) | |
| Humasis CK-MB | Negative | 38 | 1 | 39 |
| | Positive | 1 | 49 | 50 |
| Total | | 39 | 50 | 89 |

Relative Sensitivity 98%, Relative Specificity 97%, Relative accuracy 97%

• Myoglobin

| | | Quantitative Reference Test(Beckman Coulter Access) | | Total |
|-------------------|----------|---|---------------------|-------|
| | | Negative(<0.5ng/mL) | Positive(≥0.5ng/mL) | |
| Humasis Myoglobin | Negative | 36 | 0 | 36 |
| | Positive | 4 | 99 | 103 |
| Total | | 40 | 99 | 139 |

Relative Sensitivity >99%, Relative Specificity 90%, Relative accuracy 97%

• FABP

| | | Quantitative Test (Hycult ELISA) | | Total |
|--------------|----------|----------------------------------|-------------------|-------|
| | | Negative(<6ng/mL) | Positive(≥6ng/mL) | |
| Humasis FABP | Negative | 228 | 4 | 232 |
| | Positive | 7 | 82 | 89 |
| Total | | 235 | 86 | 321 |

Relative Sensitivity 95%, Relative Specificity 97%, Relative Accuracy 96%

Dengue COMBO Test Dengue NS1 Antigen Test Dengue IgG/IgM Antibody Test

Dengue is caused by Aedes mosquitoes, particularly A. albopictus. Dengue is found well in tropical and subtropical area. The difference between Dengue and Malaria is that Dengue is just as prevalent in the urban districts of its range as in rural area. According to WHO, around 2.5 billion people are at risk from dengue. Dengue manifests as fever with headache, muscle and joint pains and rash. There are four serotypes of Dengue and there is no cross-protection. So it is really important to treat it within proper time since it can be the life-threatening disease.



Dengue COMBO Test

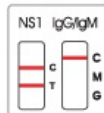
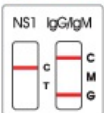
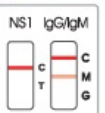
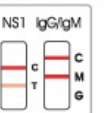
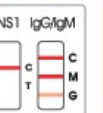
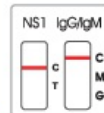


Humasis Dengue COMBO test is one step assay designed to detect both dengue virus NS1 antigen and different IgG/IgM antibodies to dengue virus in human serum, plasma or whole blood. It contains two devices (left side: Dengue NS1 Ag test, right side: Dengue IgG/IgM test).

Information

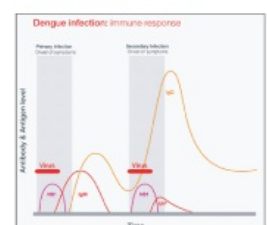
| Product name | Package | Feature | Specimen | Shelf life |
|--|--------------|----------------------|---------------------------|------------|
| NS1 & IgG/IgM Combo Test Cassette(ADEC-5025) | 25tests/case | IgG/IgM, NS1 Antigen | Whole blood/ Serum/Plasma | 24 Months |

Interpretation of results

| Positive | | | | | Negative |
|---|---|--|---|---|---|
| NS1 Positive | IgG Positive | IgM Positive | NS1/IgM Positive | IgG/IgM Positive | |
|  |  |  |  |  |  |

General information

- Qualitative detection of NS1 Antigen and IgG/IgM Antibody to Dengue
- Specimen : Serum, Plasma, Whole Blood
- Differentiation between primary and secondary dengue
- Test Result : 15 minutes



| | Dengue NS1 Rapid Test | Dengue IgG/IgM Rapid Test |
|-------------|---|---|
| Position | Left Window | Right Window |
| Use | Qualitative determination of dengue virus NS1 Antigen | Detection of IgG and IgM antibodies to dengue virus |
| Sensitivity | > 97.7% | > 99% |
| Specificity | > 99% | > 94% |

INFECTIOUS DISEASE

Dengue NS1 Antigen Test

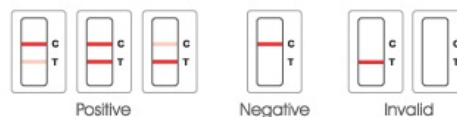


Humasis Dengue NS1 Antigen Test is an immunochromatographic test for qualitative detection of Dengue virus NS1 antigen in human serum, plasma or whole blood.

Information

| Product name | Package | Feature | Specimen | Shelf life |
|---|--------------|--------------|---------------------------|------------|
| Dengue NS1 Antigen Test Cassette(ADEG-7025) | 25tests/case | Antigen Test | Whole blood/ Serum/Plasma | 24 Months |

Interpretation of results



Features

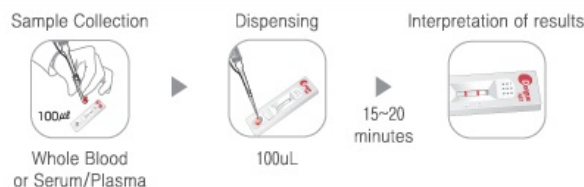
- Early detection right after the onset of the symptoms
- Highly sensitive and easy to use
- Detection of infection prior to seroconversion

Clinical Performance

| | | Virus Culture/RT-PCR | | Total |
|---------------------------------|----------|----------------------|----------|-------|
| | | Positive | Negative | |
| Humasis Dengue NS1 Antigen Test | Positive | 93 | 2 | 95 |
| | Negative | 2 | 198 | 200 |
| Total | | 95 | 200 | 295 |

Relative Sensitivity 97.9%, Relative Specificity 99.0%, Relative accuracy 98.6%

Test Procedure



Dengue IgG/IgM Antibody Test

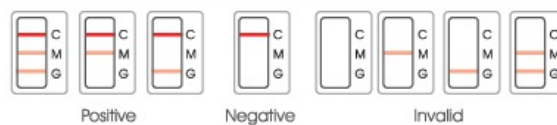


Humasis Dengue IgG/IgM Antibody Test is an immunochromatographic for qualitative detection of dengue virus serotype DEN-1,2,3 and 4.

Information

| Product name | Package | Feature | Specimen | Shelf life |
|--|--------------|---------------|---------------------------|------------|
| Dengue IgG/IgM Antibody Test Cassette(ADEN-7025) | 25tests/case | Antibody Test | Whole blood/ Serum/Plasma | 24 Months |

Interpretation of results



Features

- To show high sensitivity and specificity
- To detect dengue IgG/IgM at early stage
- To Require no other reagent

Test Procedure



INFECTIOUS DISEASE

Malaria Antigen Test



General Information

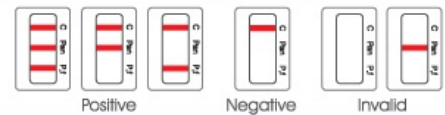
- Excellent whole blood separation(5 μ l)
- Advanced item for Malaria diagnosis
- No blood lysis and preprocessing
- Maximized sensitivity and specificity
- Result in 15~30 minutes

Information

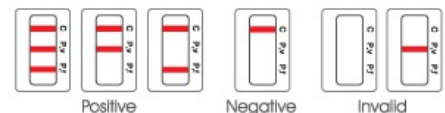
| Product name | Package | Feature | Specimen | Shelf life |
|--|--------------|--|------------------------------------|------------|
| Malaria P.f/Pan Antigen Test Cassette(AMAL-7025) | 25tests/case | HRP-II to Pf pLDH to Pf, Pv, Po, Pm | Whole blood or Fingure puncture | 24 Months |
| Malaria P.f/P.v Antigen Test Cassette(AMFV-7025) | 25tests/case | HRP-II to Pf pLDH to Pv | Whole blood or Fingure puncture | 24 Months |
| Malaria Pf Antigen Test Cassette(AMPF-7025) | 25tests/case | HRP-II to Pf | Whole blood or Fingure puncture | 24 Months |

Interpretation of results

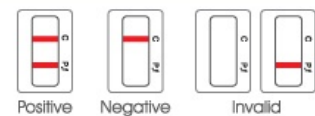
Malaria P.f/Pan Antigen Test



Malaria P.f/P.v Antigen Test



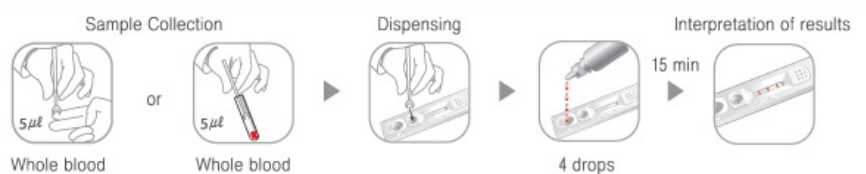
Malaria Pf Antigen Test



Clinical Performance

| Sample | | | Humasis Malaria P.f/Pan Antigen Test | |
|----------------------|--------------|-----|--------------------------------------|----------|
| | | | Positive | Negative |
| Positive | P.falciparum | 50 | 50 | 10 |
| | P.vivax | 150 | 149 | 1 |
| | Total | 200 | 199 | 1 |
| Negative | | 200 | 1 | 199 |
| Relative Sensitivity | | | 99.5%(199/200) | |
| Relative Specificity | | | 99.5%(199/200) | |

Test Procedure



INFECTIOUS DISEASE

Influenza A/B Antigen Test

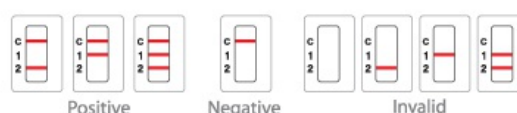


Humasis Influenza A/B Antigen Test uses monoclonal antibodies specific to influenza type A and type B antigen for accurate determination of Influenza infection. When the nasal or throat patient sample is infected with Influenza type A or B, as visible line appears in the test region on the membrane, Humasis Influenza A/B Test can also discriminate between Influenza type A and type B antigen.

Information

| Product name | Package | Feature | Specimen | Shelf life |
|---|--------------|--------------|-------------------------------------|------------|
| Influenza A/B Antigen Test Strip(AINF-3025) | 25tests/case | Antigen Test | Nasopharyngeal swab/ Throat swab | 24 Months |

Interpretation of results



General Information

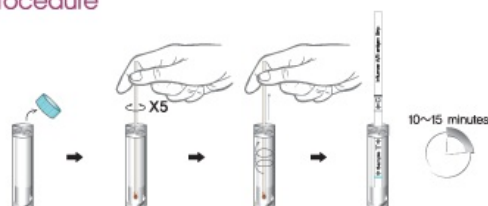
- Detect Influenza Group A(Including H1N1) & Group B virus Antigen.
- Accurate sample collection by Copan swab
- One step procedure to use the extracted diluents

Clinical Performance

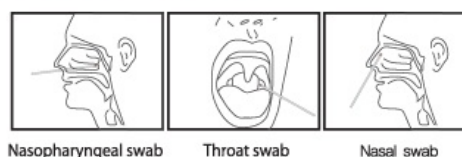
| | Result | | Humasis Influenza A/B Antigen Test | | Commercial Rapid Test | |
|--------------------------|-----------|-----|------------------------------------|-----|-----------------------|-----|
| | | | POS | NEG | POS | NEG |
| Virus culture/ RT-PCR | Type A | 150 | 137 | 13 | 135 | 15 |
| | Type B | 50 | 47 | 3 | 47 | 3 |
| | Sub Total | 200 | 184 | 16 | 182 | 18 |
| | NEG | 200 | 2 | 198 | 2 | 198 |
| Total | | 400 | 186 | 214 | 184 | 216 |

Relative Sensitivity 92%, Relative Specificity 99%, Relative accuracy 95.5%

Test Procedure



Method of sample collection



Respiratory Syncytial Virus (RSV) Antigen Test

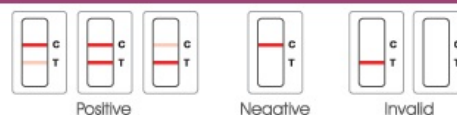


RSV Antigen Test is one step to screen the respiratory syncytial virus infection in human nasal or throat swab specimen. Respiratory syncytial virus is the most common respiratory virus in infants and children. It infects virtually all infants by the age of two, causing symptoms similar as one of the common cold. In infants born prematurely and/or with chronic lung disease, RSV can cause a severe or even life threatening disease.

Information

| Product name | Package | Feature | Specimen | Shelf life |
|-----------------------------------|--------------|--------------|-----------------|------------|
| RSV Antigen Test Strip(ARSV-3025) | 25tests/case | Antigen Test | NPS, Nasal Swab | 24 Months |

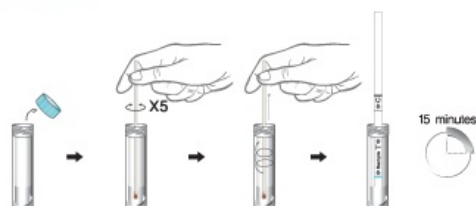
Interpretation of results



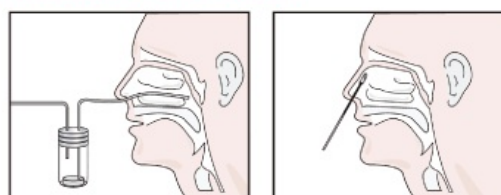
General Information

- Rapid test to detect RSV from various respiratory samples
- All necessary materials included for analyzing all sample types
- Hands-on time approximately 30 seconds

Test Procedure



Method of sample collection



INFECTIOUS DISEASE

Hepatitis B Virus Test

Hepatitis B is a widespread serious liver disease. Hundreds of millions of people, mostly from regions with poor medical care, are chronically infected with the virus and face an elevated risk of acquiring liver cancer.

The hepatitis B virus (HBV) is made up of an inner core surrounded by an outer capsule. HBsAg is also found within the core. The detection of anti-HBs has become important in the follow-up of patients with the Hepatitis B virus (HBV). It is also important when monitoring the recipients of vaccination.

HBsAg Test



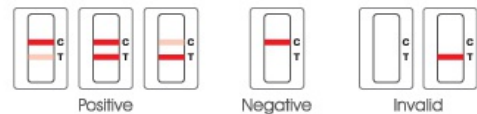
Anti-HBs Test



Information

| Product name | Format | Package | Analytical sensitivity | Specimen | Shelf life |
|----------------|--------------------------|---------------|------------------------|--------------|------------|
| HBsAg Tests | Cassette (ABSG-7025) | 25tests/case | 1ng/mL | Serum/Plasma | 24 Months |
| | Multi-device (ABSG-6100) | 100tests/case | 1ng/mL | Serum/Plasma | 24 Months |
| | Dip Strip (ABSG-3100) | 100tests/case | 1ng/mL | Serum/Plasma | 24 Months |
| Anti-HBs Tests | Cassette (ABSB-7025) | 25tests/case | 30mIU/mL | Serum/Plasma | 24 Months |
| | Multi-device (ABSB-6100) | 100tests/case | 30mIU/mL | Serum/Plasma | 24 Months |
| | Dip Strip (ABSB-3100) | 100tests/case | 30mIU/mL | Serum/Plasma | 12 Months |

Interpretation of results



Clinical Performance

- Humasis HBsAg had been compared with a leading commercial HBsAg EIA.

| | | Commercial HBsAg EIA | | Total |
|---------------|----------|----------------------|---------------------|-------|
| | | Negative(< 1 ng/mL) | Positive(≥ 1 ng/mL) | |
| Humasis HBsAg | Negative | 98 | 1 | 99 |
| | Positive | 0 | 97 | 97 |
| Total | | 98 | 98 | 196 |

Relative Sensitivity 98%, Relative Specificity >99%, Relative accuracy 99%

- Humasis Anti-HBs had been compared with a leading commercial anti-HBs antibody EIA.

| | | Commercial anti-HBs EIA | | Total |
|------------------|----------|-------------------------|----------------------|-------|
| | | Negative(< 30mIU/mL) | Positive(≥ 30mIU/mL) | |
| Humasis Anti-HBs | Negative | 100 | 1 | 101 |
| | Positive | 0 | 99 | 99 |
| Total | | 100 | 100 | 200 |

Relative Sensitivity 99%, Relative Specificity >99%, Relative accuracy 99%

Test Procedure

Cassette



Multi-device



INFECTIOUS DISEASE

H.pylori Test

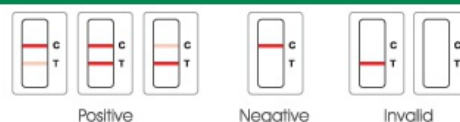


Helicobacter pylori is a helical shaped gram-negative bacterium that infects various area of the stomach and duodenum. Many cases of peptic ulcers, gastritis, duodenitis, and perhaps some cancers are caused by H.pylori infection. However, many who are infected do not show any symptoms of disease. *Helicobacter spp.* are the only known microorganisms that can thrive in the highly acidic environment of the stomach. Its helical shape (from which the genus name is derived) is thought to have to penetrate and favor its motility in the mucus gel layer.

Information

| Product name | Format | Package | Feature | Specimen | Shelf life |
|---------------|--------------------------|---------------|---------------|---------------------------|------------|
| H-pylori Card | Cassette (AHPY-7030) | 30tests/case | Antibody Test | Whole blood/ Serum/Plasma | 24 Months |
| | Multi-device (AHPY-6100) | 100tests/case | Antibody Test | Whole blood/ Serum/Plasma | 24 Months |

Interpretation of results



General Information

- Qualitative detection of antibodies to H.pylori
- Whole blood or serum/plasma can be used as specimen
- Result in 10 minutes or less

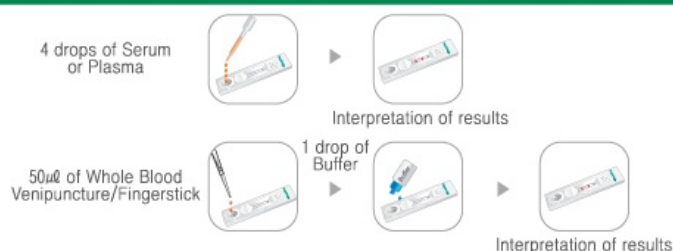
Clinical Performance

| | | Reference Test(Biopsy/Histology/Rapid Urease Test) | | Total |
|---------------|----------|--|----------|-------|
| | | Negative | Positive | |
| Humasis | Negative | 165 | 9 | 175 |
| H.pylori Card | Positive | 20 | 119 | 139 |
| Total | | 185 | 128 | 313 |

Relative Sensitivity 93.4%, Relative Specificity 91.2%, Relative accuracy 94.4%

Test Procedure

Cassette



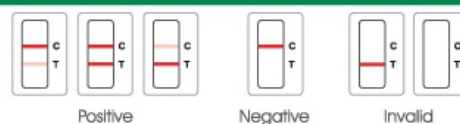
H.pylori Antigen Test



Information

| Product name | Format | Package | Feature | Specimen | Shelf life |
|-----------------------|----------------------|--------------|--------------|----------|------------|
| H-pylori Antigen Test | Cassette (AHPG-7020) | 20tests/case | Antigen Test | Stool | 24 Months |

Interpretation of results

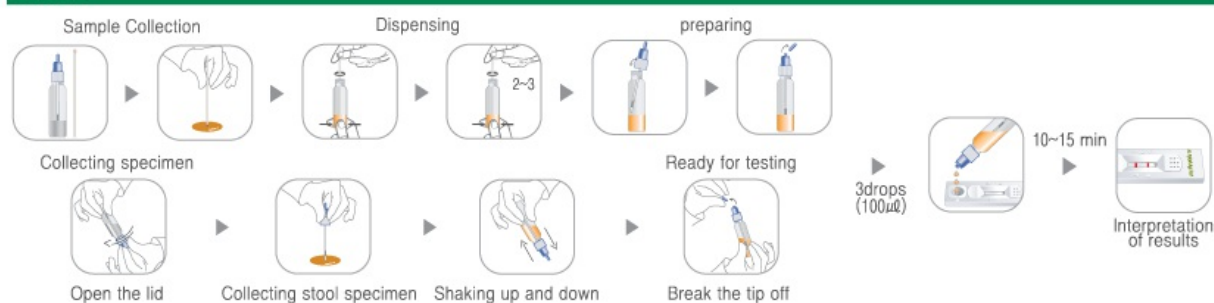


General Information

- Less affected by concomitant PPI
- Stool specimens
- Various sampling tool provided
- High Sensitivity and specificity

Test Procedure

Cassette



INFECTIOUS DISEASE

Hepatitis C Virus Test



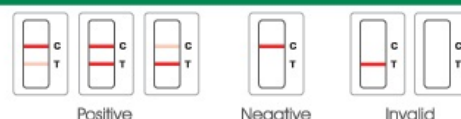
HCV Antibody Test

HCV is a positive, single-stranded RNA virus in the Flaviviridae family. Approximately 170 million people worldwide are infected with HCV. The virus is transmitted primarily by blood and blood products. It is generally believed that the majority of HCV infections give rise to an acute illness up to 80% which may develop into chronic hepatitis.

Information

| Product name | Format | Package | Feature | Specimen | Shelf life |
|--------------|-------------------------|---------------|------------------------------|---------------------------|------------|
| HCV Card | Cassette (ACB-7030) | 30tests/case | 3rd Generation Antibody Test | Whole blood/ Serum/Plasma | 18 Months |
| | Multi-device (ACB-6100) | 100tests/case | 3rd Generation Antibody Test | Whole blood/ Serum/Plasma | 18 Months |

Interpretation of results



Clinical Performance

- A study was performed using 302 positive and negative serum specimens. Each specimen was assayed with the Humasis HCV Card and a commercially available HCV EIA.

| | | Commercial HCV EIA | | Total |
|------------------|----------|--------------------|----------|-------|
| | | Negative | Positive | |
| Humasis HCV Card | Negative | 148 | 0 | 148 |
| | Positive | 2 | 152 | 154 |
| Total | | 150 | 152 | 302 |

Relative Sensitivity >99%, Relative Specificity 98%, Relative accuracy 99%

Test Procedure

Cassette



Multi-device



HIV Test



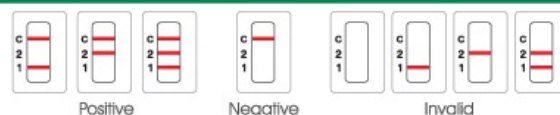
HIV 1/2 Antibody Test

Human Immunodeficiency virus(HIV) is a retrovirus that can lead to acquired immunodeficiency syndrome(AIDS), a condition in humans in which the immune system begins to fail, leading to life-threatening opportunistic infections. Infection with HIV occurs by the transfer of blood, semen vaginal fluid, pre-ejaculate, or breast milk. AIDS has killed more than 25 million people since it was first recognized on December 1, 1981, making it one of the most destructive pandemics in recorded history.

Information

| Product name | Format | Package | Feature | Specimen | Shelf life |
|--------------|-------------------------|---------------|------------------------------|---------------------------|------------|
| HIV 1/2 Card | Cassette (AIB-7030) | 30tests/case | 3rd Generation Antibody Test | Whole blood/ Serum/Plasma | 18 Months |
| | Multi-device (AIB-6100) | 100tests/case | 3rd Generation Antibody Test | Whole blood/ Serum/Plasma | 18 Months |

Interpretation of results



Clinical Performance

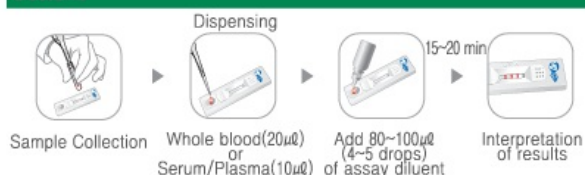
- A study was performed using 265 positive and negative serum specimens. Each specimen was assayed with the Humasis HIV 1/2 Card and a commercially available HIV EIA.

| | | Commercial HIV EIA | | Total |
|----------------------|----------|--------------------|----------|-------|
| | | Negative | Positive | |
| Humasis HIV 1/2 Card | Negative | 129 | 0 | 129 |
| | Positive | 1 | 135 | 136 |
| Total | | 130 | 135 | 265 |

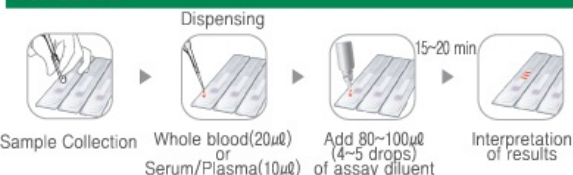
Relative Sensitivity >99%, Relative Specificity 99%, Relative accuracy 99%

Test Procedure

Cassette



Multi-device



INFECTIOUS DISEASE

Syphilis Test

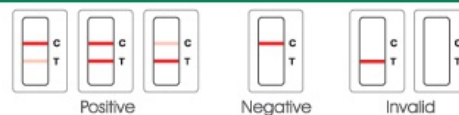


Syphilis is curable sexually transmitted disease caused by the *Treponema pallidum* spirochete. The route of syphilis is almost always by sexual contact. However, there are examples of congenital syphilis via transmission from mother to fetus.

Information

| Product name | Format | Package | Feature | Specimen | Shelf life |
|---------------|-------------------------|---------------|-----------------------------------|--------------|------------|
| Syphilis Card | Cassette (ASB-7030) | 30tests/case | Treponemal pallidum Antibody Test | Serum/Plasma | 18 Months |
| | Multi-device (ASB-6100) | 100tests/case | Treponemal pallidum Antibody Test | Serum/Plasma | 18 Months |

Interpretation of results



General Information

- One Step qualitative Immunochromatographic assay
- Specimen : Serum, Plasma
- The optimal choice for mass screening program
- Room temperature storage

Clinical Performance

| | | Syphilis EIA | | Total |
|-----------------------|----------|--------------|----------|-------|
| | | Negative | Positive | |
| Humasis Syphilis Card | Negative | 148 | 0 | 148 |
| | Positive | 1 | 60 | 61 |
| Total | | 149 | 60 | 209 |

Relative Sensitivity >99%, Relative Specificity 99.3%, Relative accuracy 99.5%

Test Procedure

Cassette



Multi-device



Chlamydia Test

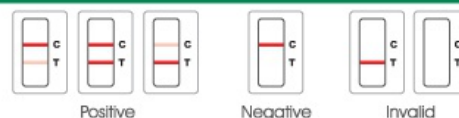


Chlamydia trachomatis is a bacterium which causes a sexually transmitted infection (STI). Chlamydia is very common disease, which should be taken very seriously. The most worried effect of a chlamydia infection in women is potential fertility problem (PID, infertility, etc), due to inflammation of the fallopian tubes or cervix. The disease is particularly common among young people.

Information

| Product name | Format | Package | Analytical sensitivity | Specimen | Shelf life |
|----------------|----------------------|--------------|--------------------------|--------------|------------|
| Chlamydia Test | Cassette (ACHG-7025) | 25tests/case | 2X10 ³ IFU/mL | Vaginal Swab | 18 Months |

Interpretation of results



General Information

- Test Device
- Swab
- Pre-dispensed Extraction Solution
- Test Rack

Clinical Performance

| | | PCR | | Total |
|------------------------|----------|----------|----------|-------|
| | | Negative | Positive | |
| Humasis Chlamydia Test | Negative | 85 | 0 | 85 |
| | Positive | 0 | 51 | 51 |
| Total | | 85 | 51 | 136 |

Relative Sensitivity 99%, Relative Specificity 99%, Relative accuracy 99%

| | | Commercial Rapid Test | | Total |
|------------------------|----------|-----------------------|----------|-------|
| | | Negative | Positive | |
| Humasis Chlamydia Test | Negative | 85 | 0 | 85 |
| | Positive | 0 | 51 | 51 |
| Total | | 85 | 51 | 136 |

Relative Sensitivity 99%, Relative Specificity 99%, Relative accuracy 99%

Test Procedure

Cassette



TUMOR

CEA Test



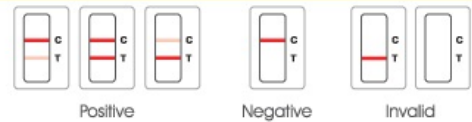
Carcinoembryonic Antigen(CEA) Test

Carcinoembryonic Antigen(CEA) is a glycoprotein involved in cell adhesion. It is normally produced during fetal development, but the production of CEA stops before birth. Therefore, it is not usually present in the blood of healthy adults, but levels are raised in heavy smokers. So, CEA measurement is mainly used as a tumor marker to identify recurrences after surgical resection.

Information

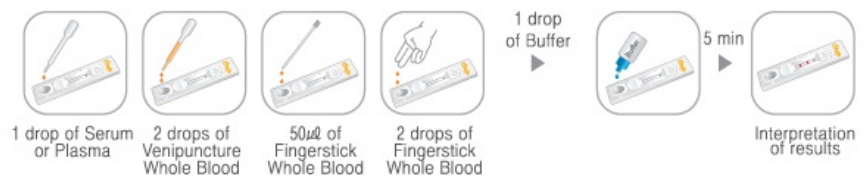
| Product name | Format | Package | Analytical sensitivity | Specimen | Shelf life |
|--------------|--------------------------|---------------|------------------------|---------------------------|------------|
| CEA Card | Cassette (ACEA-7030) | 30tests/case | 5ng/mL | Whole blood/ Serum/Plasma | 14 Months |
| | Multi-device (ACEA-6100) | 100tests/case | 5ng/mL | Whole blood/ Serum/Plasma | 14 Months |

Interpretation of results



Test Procedure

Cassette



FOB Test



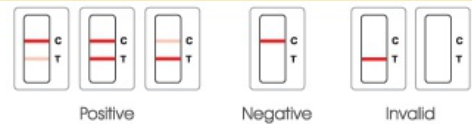
Fecal Occult Blood(FOB) Test

The presence of hemoglobin in feces can be indicative of gastrointestinal tract conditions associated with bleeding such as colorectal carcinoma, diverticulitis, colon polyps, Crohn's disease, and ulcerative colitis.

Information

| Product name | Format | Package | Analytical sensitivity | Specimen | Shelf life |
|--------------|--------------------------|--------------|------------------------|----------|------------|
| FOB Test | Cassette (AFOB-7020) | 20tests/case | 50ng/mL | Stool | 18 Months |
| | Multi-device (AFOB-6050) | 50tests/case | 50ng/mL | Stool | 18 Months |

Interpretation of results



Test Procedure

Test Preparation



Cassette



Multi-device



TUMOR

AFP Test



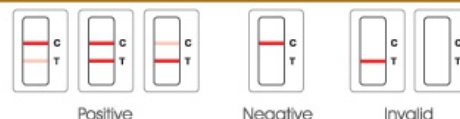
Alpha-Fetoprotein(AFP)Test

Alpha-Fetoprotein(AFP)Test is synthesized primarily in the liver and yolk sac of the fetus. It is secreted into fetal serum, reaching a peak at about 13 weeks gestation and gradually declining thereafter. Elevated serum AFP levels reappear during pregnancy and in conjunction with several malignant diseases such as testicular cancer, hepatocellular carcinoma, viral hepatitis and cirrhosis. Normal AFP value in healthy men and nonpregnant women is less than 20ng/mL but in pregnant women, it varies according to the age of fetus and women's weight and race.

Information

| Product name | Format | Package | Analytical sensitivity | Specimen | Shelf life |
|--------------|--------------------------|---------------|------------------------|--------------|------------|
| AFP Card | Cassette (AAFP-7030) | 30tests/case | 20ng/mL | Serum/Plasma | 24 Months |
| | Multi-device (AAFP-6100) | 100tests/case | 20ng/mL | Serum/Plasma | 24 Months |

Interpretation of results

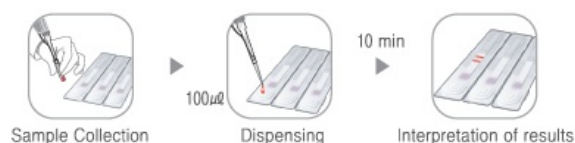


Test Procedure

Cassette



Multi-device



PSA Test



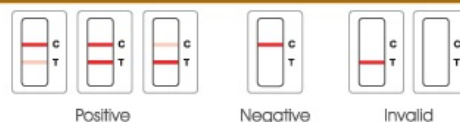
Prostate Specific Antigen(PSA) Test

Prostate Specific Antigen(PSA) is synthesized only by the prostate gland. The amount of PSA in the blood normally increases as a men's prostate enlarges with age. However, normal total PSA concentratin of men, age 40 to 50, is less 2.5ng/mL. The concentration of PSA is elevated in blood of prostate cancer patients. The PSA test is effective in screening prostate cancer and monitoring its development and the response to treatment.

Information

| Product name | Format | Package | Analytical sensitivity | Specimen | Shelf life |
|--------------|--------------------------|---------------|------------------------|---------------------------|------------|
| PSA Test | Cassette (APSA-7030) | 30tests/case | 4.0ng/mL | Whole blood/ Serum/Plasma | 18 Months |
| | Multi-device (APSA-6100) | 100tests/case | 4.0ng/mL | Whole blood/ Serum/Plasma | 18 Months |

Interpretation of results



Test Procedure

Cassette



Multi-device





HUMASIS Urinalysis

Smart
U=AQ

300Tests/h

Urine Chemistry Analyzer
more Accurate & Quicker

| Technical Specifications | |
|--------------------------|------------------------------------|
| Operating mode | Semi-automatic urine analyzer |
| Dimension | 275x250x170mm |
| Weight | 1.3 kg |
| Power | 100-250V, 3A |
| Oper. Conditions | Temp. : 2°C-30°C / Humi. : 10%-70% |
| Method | Reflectance photometer |
| Test Capacity | 300Tests/hour(Max. 800tests) |
| Memory Capacity | 2,000 Samples |
| Interface | RS232C, PS/2 |



Core
U=AQ 50Tests/h



| Technical Specifications | |
|--------------------------|------------------------------------|
| Operating mode | Semi-automatic urine analyzer |
| Dimension | 300x250x90mm |
| Weight | 1.2 kg |
| Power | 100-250V, 2A |
| Oper. Conditions | Temp. : 2°C-30°C / Humi. : 10%-70% |
| Method | Reflectance photometer |
| Test Capacity | 50Tests/hour(Max. 120tests) |
| Memory Capacity | 2,000 Samples |
| Interface | RS232C, PS/2 |

| Product | Cat. No. | Quantity/Set | | | |
|---------------------------|-------------|-----------------------|--------------------------------------|-------------------|---------------|
| U-AQ smart | AAQ-8011 | 1Set | * option : Keyboard / Barcode Reader | | |
| AC Adapter | Power cable | Thermal Printer paper | User Manual | Plate | RS 232C Cable |
| 1EA (100-240V / 12VDC 3A) | 1EA | 2 Roll | 1EA | 2EA | 1EA |
| Product | Cat. No. | Quantity/Set | | | |
| U-AQ core | AAQ-8010 | 1Set | * option : Keyboard | | |
| AC Adapter | Power cable | Thermal Printer paper | User Manual | User's program CD | RS 232C Cable |
| 1EA (100-240V / 12VDC 3A) | 1EA | 2 Roll | 1EA | 1EA | 1EA |

HUMASIS Urinalysis

U-AQS



Reagent Strips for Urinalysis

- Fast result visually or instrumentally
- High accuracy and reproducibility
- No interference in various conditions
- Quick Results(all reagent pads are read at one time, between one and two minutes after dipping).
- Good resistance to humidity
- Long shelf life : 24 months
- Unusual color of urine can be reported and compensated
- kFDA & CE marked

29
—
30

| | Cat. No. | Urinalysis Strips | | | | | | | | | | |
|-----------|---------------------|-------------------|-------------------------------|-------|---------------------------|-------------|------------------------------|---------|------------------------------|--------------|------|-----------------------------|
| U-AQS 2GP | AUS2GP-3100 | — | | | | | | — | | | | |
| U-AQS 3 | AUS3-3100 | — | | | | | | — | | | | |
| U-AQS 3GK | AUS3GK-3100 | — | | — | | | | — | | | | |
| U-AQS 4 | AUS4-3100 | — | | | | — | — | — | | | | |
| U-AQS 4SG | AUS4SG-3100 | — | | | — | | — | — | | | | |
| U-AQS 5 | AUS5-3100 | — | | — | | — | — | — | | | | |
| U-AQS 10 | AUS10-3100 | — | — | — | — | — | — | — | — | — | — | — |
| U-AQS 11 | AUS11-3100 | — | — | — | — | — | — | — | — | — | — | — |
| | | Quality Controls | | | | | | | | | | |
| Level I | Liquicheck Controls | N/A | Neg. | Neg. | Neg. | 1.010~1.020 | Neg. | 5.0~6.0 | Neg. | Norm. | Neg. | Neg. |
| Level II | Liquicheck Controls | N/A | ±/~-4+ (100~2000 mg/dl) | 1+~2+ | ±/~-2+ (5~40 mg/dl) | 1.010~1.015 | ±/~-3+ (10~200 RBC/μl) | 6.5~8.0 | ±/~-3+ (15~300 RBC/μl) | 2~8 mg/dl | Pos. | ±/~-3+ (15~500 μl/dl) |

Abb.: Neg., negative; Pos., positive; Norm., normal

Ordering

When you place an order, please inform us full description, product catalogue number, package, quantity required including any special instructions with the correct billing and shipping address.

Contact information is as follow:

- Humasis Co.,Ltd
- Rm. 504, Shinwon Vision Tower, 88 Jeonpa-ro, Dongan-Gu, Anyang-si, Gyeonggi-do, 431-836, Korea
- Tel: +82-31-478-8591 Fax: +82-31-478-8586
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 Humasis