



# **NEWBORN SCREENING**

**Photometry Test Kits (EIA)** 

#### **About Trivitron**

Trivitron Healthcare as a medical technology company providing affordable healthcare solutions weaves a fascinating thread of inspiration to many healthcare providers. Trivitron markets its products to hospitals, individual healthcare providers, independent clinics and laboratories, extended care facilities and all other roofs providing healthcare solutions. At Trivitron, quality healthcare is considered as a fundamental right and the vision is to make it available for the people of all classes.

Trivitron is among the pioneers in bringing high end medical technology within the reach of society with strong emphasis on research and development, manufacturing and strategic partnerships with global leaders. Trivitron is making healthcare affordable and accessible in over 180 countries with innovative products and solutions, saving lives and improving care, through 15 manufacturing facilities spread across India, Finland, Turkey & China.

The eventful journey has brought acclaims for almost each of our businesses. Our human resources remain the most valuable assets responsible for the accolades that we have received for businesses, exports, innovations and of course our human resources development practices. We have the unique distinction of being unconventional in our thinking and always willing to re-engineer ourselves to address challenges faced by society in healthcare and medical technology.

## What is Newborn Screening?

Newborn screening is a preventive healthcare program and it is essential for testing babies at birth.

The test simply requires a few drops of blood, which is collected on a Whatman 903 five circle filter card (Bome), 903 filter card with demographics (EBS forms, USA) by pricking the heel of the baby. After allowing the paper to dry, it is sent to the laboratory where analysis is done for different genetic, and metabolic disorders.

# Why choose Trivitron for Newborn Screening?

- One stop solution for NBS requirement
- In-house manufacturing facility
- 2<sup>nd</sup> largest manufacturer for NBS reagents
- CE-IVD certified products
- Make in India initiative
- Endorsed based on proven research published in peer reviewed journal
- Kits available in fluori-enzymatic and chromo-enzymatic reaction
- Manual as well as fully automated systems for Newborn Screening

## Advantages of DBS sample

- DBS samples contain whole blood which do not require any further processing post collection
- Sample from remote location can be collected and transported for analysis
- The drying effect also halts many of the enzymatic reactions that continue to occur in liquid samples, thereby preserving the stability of compounds at room temperature in DBS samples
- DBS is a suitable matrix for conducting metabolomics experiments



## NeoScreen hTSH (Congenital hypothyroidism)

Enzyme immunoassay for quantitative determination of human thyrotropin (hTSH) in blood specimens dried on filter paper as a primary test for screening of babies for congenital hypothyroidism (CH).

Assay Type: Quantitative

Detection method: Enzyme immunoassay

Platform: Microplate reader

Assay time: 3.0 hours Sensitivity: 1.7 mg/mL

- High-quality optimized antibody coated ELISA kits
- Specific for human thyrotropin (hTSH)
- Ready-to-use reagents
- Lowest possible inter- and intra-assay variability
- Highest possible lot-to-lot consistency
- Designed for labs that require validated and comprehensively tested kits
- High sensitivity 0.9 mIU/L Bloodtested kits
- Validated performance—tested for plate to plate variation(CV)
- Available in pack size of 192 Wells

- Antibody coated microplate 2 strip plates
- Anti-hTSH-HRP conjugate
- Substrate solution TMB chromogen
- Calibrator A –F, grade 903 filter paper
- Controls C1 C2, grade 903 filter paper
- Conjugate diluent
- Wash solution
- Stop solution



## NeoScreen 17-OHP (Congenital adrenal hyperplasia)

Enzyme immunoassay for the quantitative determination of human 17-hydroxyprogesterone from blood samples dried on filter paper as a primary test for screening of babies for congenital adrenal hyperplasia

Assay Type: Quantitative

Detection method: Enzyme immunoassay

Platform: Microplate reader

Assay time: 2.0 hours

Sensitivity: 0.36 ng/mL blood

- High-quality optimized antibody pre coated antibody ELISA kits
- Specific for 17- hydroxyl progesterone
- Ready-to-use reagents
- Lowest possible inter- and intra-assay variability
- Highest possible lot-to-lot consistency
- Designed for labs that require validated and comprehensively tested kits
- High sensitivity 0.36 ng/mL blood
- Validated performance—tested for plate to plate variation(CV)
- Available in pack size of 192 Wells

- Antibody coated microplate
- 17-0HP-HRP Conjugate
- Substrate solution TMB chromogen
- Calibrator A –F, grade 903 filter paper
- Controls C1 C2, grade 903 filter paper
- Conjugate diluent
- Wash solution
- Stop solution



## **NeoScreen IRT EIA (Cystic fibrosis)**

Enzyme immunoassay for the determination of human immunoreactive trypsinogen (IRT-1) from blood samples dried on filter paper as primary test for screening of babies for cystic fibrosis (CF).

Assay Type: Quantitative

Detection method: Enzyme immunoassay

Platform: Microplate reader

Assay time: 4.0 hours

- High-quality optimized antibody coated ELISA kits
- Specific for Trypsinogen-1 (IRT-1)
- Ready-to-use reagents
- Highest possible lot-to-lot consistency
- Designed for labs that require validated and comprehensively tested kits
- Validated performance—tested for plate to plate variation(CV)
- Available in pack size of 192 Test

- Antibody coated microplate
- 17-0HP-HRP Conjugate
- Substrate solution TMB chromogen
- Calibrator A –F, grade 903 filter paper
- Controls C1 C2, grade 903 filter paper
- Conjugate diluent
- Wash solution
- Stop solution



## NeoScreen Galactose (Galactosemia)

Enzyme assay for the determination of total galactose from blood specimens dried on filter

Assay Type: Quantitative

Detection method: Enzymatic Platform: Microplate reader

Assay time: 2.5 hours Sensitivity: 1.7 mg/mL

- Specific for galactose substrate (Substrate specific)
- Ready-to-use reagents
- Based on colour formation due to NADPH which is formed during enzymatic reaction (Redox reaction)
- Lowest possible inter- and intra-assay variability
- Highest possible lot-to-lot consistency
- Designed for labs that require validated and comprehensively tested kits
- Validated performance—tested for plate to plate variation(CV)
- Available in pack size of 192 Wells

- AFOS, alkaline phosphatase (enzyme)
- NAD, -Nicotinamide adenine dinucleotide (- NAD; coenzyme) Lyophilized powder.
- GDH solution, -galactose dehydrogenase (enzyme)
- Reaction buffer
- Chromogenic solution-Tetrazolium salt in buffer and preservative.
- Calibrator A –F, grade 903 filter paper
- Controls C1 C2, grade 903 filter paper



#### NeoScreen G6PD

Enzyme assay for the determination of total glucose-6-phosphate dehydrogenase from blood samples dried on filter paper

Assay Type: Quantitative

Detection method: Colorimetric Platform: Microplate reader

Assay time: 1.5 hours Sensitivity: 0.05 U/gHb

- Specific for G-6-P and NADP (Enzyme specific)
- Ready-to-use reagents
- Based on colour formation due to NADPH which is formed during enzymatic reaction (Redox reaction)
- Lowest possible inter- and intra-assay variability
- Highest possible lot-to-lot consistency
- Designed for labs that require validated and comprehensively tested kits
- Validated performance—tested for plate to plate variation(CV)
- Available in pack size of 192 Wells

- SUBSTRATE- contains G-6-P and NADP (enzyme) Lyophilized powder
- Substrate buffer
- Chromogenic solution Tetrazolium salt in buffer
- Calibration A F, grade 903 paper
- Controls C1 C2, grade 903 filter paper



# **Newborn Screening Modular Devices**



NS496 Plus DBS Puncher



LDx W1 - ELISA Microplate Washer



Incubator/Shaker



LDx R1 - ELISA Microplate Reader



NS96 Disc Remover

#### **Instruments**

Cat. No	Product Name
5450300	Neonatal NS496 Plus DBS Puncher
5550300	Neonatal Disc Remover NS96 (220 V)
5420211	NS Microplate Washer
5450500	NS Microplate Incubator Shaker
5410211	NS Microplate Fluorometric Reader

## **EIA Kits & Reagents**

Cat. No	Product Name	Plate type/format	Detection Method	Pack Size
30201180	NeoScreen 17-0HP	Solid	Photometry	192
30201181	NeoScreen TSH	Solid	Photometry	192
30201182	NeoScreen IRT	Solid	Photometry	192
30201183	NeoScreen G6PD	Solid	Photometry	192
30201184	NeoScreen Galactose	Solid	Photometry	192





