NEONATAL GALT

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Overview

Labsystems Diagnostics' Neonatal GALT test is designed for the quantitative in vitro determination of galactose-1-phosphate uridyltransferase (GALT) activity in blood samples dried on filter paper.
This kit is intended for screening newborns for classic galactosemia, which is caused by the inability to convert Galactose-1-phosphate into glucose-1-phosphate due to GALT deficiency. The determination is based on four reactions. shown below:

1. Gal-1-P + UDPG $\xrightarrow{\text{GALT}}$ G-1-P + UDP-Gal
2. G-1-P $\xrightarrow{\text{PGM}}$ G-6-P
3. G-6-P + NADP $\xrightarrow{\text{G6PD}}$ 6-PGA + NADPH
4. 6-PGA + NADP $\xrightarrow{\text{6PGDH}}$ R-5-P + NADPH

Hereditary galactosemia is among the most common carbohydrate metabolism disorders and can be life threatening illness during the newborn period. Galactosemia is an inherited defect of galactose metabolism caused by an enzyme deficiency. It is an autosomal recessive defect and occurs at the average worldwide incidence of aprox. 1:50000 but varies geographically. Cardinal features are hepatomegaly, cataracts and mental retardation.

Surviving babies who remain untreated may have mental retardation and other damage to the brain and nervous system. Classic galactosemia cannot be cured, but it can be effectively treated by eliminating lactose and galactose from the diet like milk and all dairy products, if detected in early stage of life and disease course.

Key Features

1. Fluorometric determination
2. Excellent sensitivity with good stability and reproducibility
3. No false positives caused by G6PD deficiency
4. Same kit for both modular and automate procedures
5. Less processing time
6. No additional measurement step
7. Wide measuring range
8. Automated plate to plate transfer procedure to avoid any disc floating interference.
9. CE marked

Product Info

Product Code	Product Name	Plate type	Packing Size	Regulatory Status
6199810	Neonatal GALT	96 Wells Solid	960 Wells	CE Marked

References

1. Diepenbrock, F., Heckler, R., Schickling, H., Engelhard, T., Bock, D. and Sander J. 1992. Colorimetric determination galactose and galactose-1-phosphate from dried blood. Clin. Biochem. 25:37-39.
2. Levy, H.L. and Hammersen G. 1978 Newborn screening for galactosemia and other galactose metabolic defects. J.Pediatrics 92(6): 871-877
3. DeClue, T.J., Malone, J.I. and Tedesco, T.A.. 1991 Florida newborn screening for galactosemia. J. Florida M. A. 78 (6): 369-371.

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