

Louisiana Office of Public Health Laboratories	
Test Name	Neonatal Galactose-1-phosphate uridyl transferase Kit
PHL Location	Central Laboratory 1209 Leesville Avenue Baton Rouge, Louisiana 70802
CPT Code	82776
Synonyms	GALT
Brief Description of Test	Intended for the quantitative determination of Galactose-1-phosphate uridyl transferase activity in blood specimens dried on filter paper as an aid in screening newborns for classical Galactosemia caused by GALT deficiency.
Possible Results	Normal & Abnormal
Reference Range	Normal >3.5U/dL ; Abnormal ≤3.5 U/dL
Specimen Type	Neonatal Dried Blood Spot
Specimen Container(s):	Standard letter size manila envelopes can be used for shipping
Minimum volume accepted:	Minimum of 2 completely filled blood spot circles
Collection Instructions	Blood specimens should be taken directly from a heel prick onto filter paper. See webaddress below http://www.ldh.louisiana.gov/index.cfm/page/488
Storage and Transport Instructions	Allow the blood specimen to air-dry in a horizontal position for at least 3 hours at ambient temperature (+18 to +25°C), not in direct light. Do not heat or stack the specimens during the drying process. Transport or mail the specimen to the laboratory within 24 hours after collection, unless otherwise directed by the screening laboratory.
Causes for Rejection	Specimen > 14 days old, clotted or layered, serum rings, scratched or abraded, insufficient quantity for testing, not completely dry before mailing, blood applied to both sides of the filter paper, diluted discolored or contaminated, collection using capillary tubes containing EDTA, >12 months old, circles not completely filled.
Limitations of the Procedure	Samples spot not uniformly saturated with blood - sample spots punched too close to the edge of the blood spot - poorly collected and improperly dried specimens - non-eluting blood spot due to deterioration of sample caused by exposure to heat and humidity - contamination of blood spot filter paper with fecal material. Haematocrit values in the blood sample may affect the measured GALT enzyme activity. Patients with glucose-6-phosphate dehydrogenase deficiency may test positive for GALT deficiency. Endogenous fluorescence cannot be ruled out as a source of fluorescence. Endogenous fluorescence may result in apparent GALT values.
Interfering Substances	Gluathione did not interfere up to concentrations of 18.8, 37.5 and 56.3 mg/dL blood at sample GALT activities of 3, 6, and 12 U/dL respectively. Glutathione concentrations above these levels caused a decrease of up to 63% of GLAT activity. Galactose-phosphate GAL-1-P concentration of 12.5mg/dL blood interfered with the result of the samples with GALT activities 6 and 12U/dL. The measured GALT result decreased up to 37%. Total protein (HSA) had on effect on the high (12U/dL) activity sample. HAS did not interfere up to added concentration of 3000 mg/dL, which is approximately two times higher than the normal endogenous concentration of normal neonates, at sample GALT activities 3 and

	6 U/dL. Added HSA concentrations above this level caused an increase up to 30% in GALT activity.
References	GSP Neonatal GALT package insert
Additional Information	N/A
Release Date	05/2018

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