

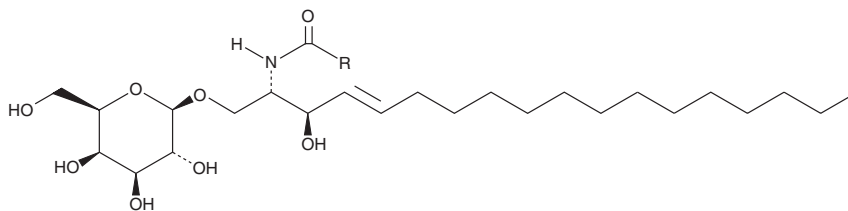
# PRODUCT INFORMATION



## Galactosylceramide (non-hydroxy) (bovine)

Item No. 24835

**CAS Registry No.:** 536-13-0  
**Synonym:** Cerebrosides; Kerasin (top spot),  
**MF:** C<sub>48</sub>H<sub>91</sub>NO<sub>8</sub> (for Nervonyl [C24:1])  
**FW:** 810.3  
**Purity:** ≥98%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Galactosylceramide (non-hydroxy) (bovine) is supplied as a solid. A stock solution may be made by dissolving the galactosylceramide (non-hydroxy) (bovine) in the solvent of choice. Galactosylceramide (non-hydroxy) (bovine) is soluble in a 3:2:1 solution of chloroform:methanol:water.

### Description

Galactosylceramides are glycosphingolipids that contain galactose attached to a ceramide containing an N-acyl hydroxy or non-hydroxy fatty acid. They are metabolic precursors to sulfatide (Item No. 24323), found primarily in nerve tissues, and are the main glycosphingolipids in the central nervous system.<sup>1,2</sup> Galactosylceramides are involved in a multitude of cellular processes including cell agglutination, cellular signaling in glycosynapses, cellular development, and activation of T cells.<sup>1-3</sup> They accumulate in globoid cells in the brain of patients with Krabbe disease, a disorder characterized by a deficiency in galactosylcerebrosidase activity.<sup>2</sup> This product contains non-hydroxy galactosylceramides with primarily C24:0 and C24:1 fatty acyl chain lengths. As this product is derived from a natural source, there may be variations in the sphingoid backbone.

### References

1. Boggs, J.M., Gao, W., Zhao, J., et al. Participation of galactosylceramide and sulfatide in glycosynapses between oligodendrocyte or myelin membranes. *FEBS Lett.* **584**(9), 1771-1778 (2010).
2. Wenger, D.A., Rafi, M.A., and Luzzi, P. Krabbe disease: One hundred years from the bedside to the bench to the bedside. *J. Neurosci. Res.* **94**(11), 982-989 (2016).
3. Birkholz, A.M., Howell, A.R., and Kronenberg, M. The  $\alpha$  and  $\Omega$  of galactosylceramides in T cell immune function. *J. Biol. Chem.* **290**(25), 15365-15370 (2015).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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