

PRODUCT INFORMATION



Globopentaosylceramide (porcine RBC)

Item No. 36242

CAS Registry No.: 171108-15-9

Formal Name: O-β-D-galactopyranosyl(1→3)-O-2-(acetylamino)-2-deoxy-β-D-galactopyranosyl-(1→3)-O-α-D-galactopyranosyl-(1→4)-O-β-D-galactopyranosyl-(1→4)-β-D-glucopyranose

Synonyms: Gb5, Globoside Gb5, SSEA-3, Stage-specific Embryonic Antigen-3

MF: C₇₄H₁₃₆N₂O₂₈

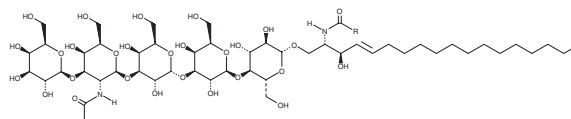
FW: 1,501.9

Purity: ≥95%

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

Globopentaosylceramide (porcine RBC) is supplied as a solid. A stock solution may be made by dissolving the globopentaosylceramide (porcine RBC) in the solvent of choice, which should be purged with an inert gas. Globopentaosylceramide (porcine RBC) is soluble in methanol.

Description

Globopentaosylceramides are glycosphingolipids and cell surface markers.¹⁻⁴ They are present during oogenesis and preimplantation embryonic development and on primitive endoderm, extraembryonic visceral endoderm, embryonic stem cells, and pluripotent multilineage-differentiating stress-enduring (Muse) cells.¹⁻³ Globopentaosylceramides are also present on cancer stem cells.⁴ *This product contains globopentaosylceramides with primarily C24:0, C22:0, and 2-hydroxy C24:0 fatty acyl chains. As this product is derived from a natural source, there may be variations in the sphingoid backbone.*

References

1. Handa, K. and Hakomori, S.-I. Changes of glycoconjugate expression profiles during early development. *Glycoconj. J.* **34**(6), 693-699 (2017).
2. Muramatsu, T. and Muramatsu, H. Carbohydrate antigens expressed on stem cells and early embryonic cells. *Glycoconj. J.* **21**(1-2), 41-45 (2004).
3. Wakao, S., Kushida, Y., and Dezawa, M. Basic characteristics of muse cells. *Adv. Exp. Med. Biol.* **1103**, 13-41 (2018).
4. Cheung, S.K., Chuang, P.K., Huang, H.W., et al. Stage-specific embryonic antigen-3 (SSEA-3) and β3GalT5 are cancer specific and significant markers for breast cancer stem cells. *Proc. Nat. Acad. Sci. USA* **113**(4), 960-965 (2016).

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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