PRODUCT INFORMATION

Ganglioside Mixture

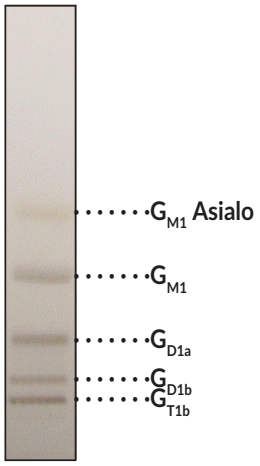
Item No. 29362

Supplied as: A solution in chloroform:methanol:water (2:1:0.1)
Storage: -20°C
Stability: ≥1 year
Concentration: 0.5 mg/ml

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

Description and Data

Gangliosides are acidic membrane sphingolipids that contain sialic acid and oligosaccharide moieties.[1] They have roles in cell proliferation, differentiation, adhesion, neuronal plasticity, intra- and intercellular signaling, and neurogenesis.[1-3] They accumulate in a variety of lysosomal storage disorders including Sandhoff, Tay-Sachs, and Niemann-pick diseases.[4,5] Ganglioside Mixture contains the gangliosides asialo G_{M1}, G_{M1}, G_{D1a}, G_{D1b}, and G_{T1b} and is intended for use as a reference standard for the detection of these gangliosides in various samples by TLC, LC-, or GC-MS.



References

1. Kolter, T. Ganglioside biochemistry. *ISRN Biochem*. **2012:506160** (2012).
2. Mukherjee, P., Faber, A.C., Shelton, L.M., *et al. Thematic review series: Sphingolipids*. Ganglioside GM3 suppresses the proangiogenic effects of vascular endothelial growth factor and ganglioside GD1a. *J. Lipid Res*. **49(5)**, 929-938 (2008).
3. Wang, J., Cheng, A., Wakade, C., *et al*. Ganglioside GD3 is required for neurogenesis and long-term maintenance of neural stem cells in the postnatal mouse brain. *J. Neurosci*. **34(41)**, 13790-13800 (2014).
4. Baek, R.C., Martin, D.R., Cox, N.R., *et al*. Comparative analysis of brain lipids in mice, cats, and humans with Sandhoff disease. *Lipids* **44(3)**, 197-205 (2009).
5. Walkley, S.U. Secondary accumulation of gangliosides in lysosomal storage disorders. *Semin. Cell Dev. Biol.* **15(4)**, 433-444 (2004).

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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