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Technical Data Sheet

1-Oleoyl Lysophosphatidic Acid (sodium salt)

Catalog Number :2256236

RUO: For Research Use Only. Not for use in diagnostic procedures.

Product Information

Synonyms: 9-Octadecenoicacid (9Z)-, 2-hydroxy-3-(phosphonooxy)propyl ester, 1-Oleoyl-sn-glycerol 3-phosphatesodium salt, 1-oleoyl sodium salt, LPA sodium salt

Chemical Name: [2-hydroxy-3-(octadec-9-enoyloxy)propoxy]phosphonic acid sodium

Molecular Formula: $C_{21}H_{40}O_7P$ Na

Molecular Weight: 458.5

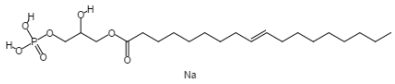
CAS Number: 22556-62-3

Purity: ≥95%

Applications: FA

Formulation: Crystalline solid

Storage: Product should be kept at-20°C.



Description

1-Oleoyl Lysophosphatidic Acid is a lysophophatidic acid (LSA) with oleic acid in the sn-1 position that is an endogenous agonist for LPA1 and LPA2 receptors. It is reported to inhibit the differentiation of neural stem cells into neurons and is involved in multiple biological activities such as smooth muscle contraction, platelet aggregation, cell proliferation, cell migration, and calcium mobilization. 1-Oleoyl Lysophosphatidic Acid is commonly used for growth stimulation in a variety of cell lines.

Preparation & Storage

Soluble in PBS pH7.2 up to 18mM. If possible aqueous solutions should be made and used on the same day.

References

1.McIntyre, T. M., Pontsler, A. V., Silva, A. R., Hilaire, A. S., Xu, Y., Hinshaw, J. C., ... Prestwich, G. D. (2003). Identification of an intracellular receptor for lysophosphatidic acid (LPA): LPA is a transcellular PPARγ agonist.Proceedings of the National Academy of Sciences,;100(1), 131-136.

2. Dottori, M., Leung, J., Turnley, A. M., Pebay, A. (2008). Lysophosphatidic acid inhibits neuronal differentiation of neural stem/progenitor cells derived from human embryonic stem cells.;Stem Cells,;26(5), 1146-1154.

3. Lapierre, D. M., Tanabe, N., Pereverzev, A., Spencer, M., Shugg, R. P., Dixon, S. J., Sims, S. M. (2010). Lysophosphatidic acid signals through multiple receptors in osteoclasts to elevate cytosolic calcium concentration, evoke retraction, and promote cell survival.;Journal of Biological Chemistry,;285(33), 25792-25801.

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