

PRODUCT INFORMATION



1-NBD-Stearoyl-2-arachidonoyl-*sn*-glycerol

Item No. 10011300

Formal Name: N-[7-(4-nitrobenz-2-oxa-1,3-diazole)]-1-octadecanoyl-2-(5Z,8Z,11Z,14Z)-eicosatetraenoyl-*sn*-glycerol

Synonym: NBD-SAG

MF: C₄₇H₇₄N₄O₈

FW: 823.1

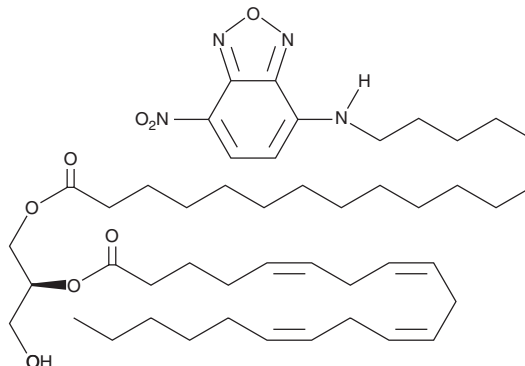
Purity: ≥95%

UV/Vis.: λ_{max}: 28, 332, 465 nm

Supplied as: A solution in ethanol

Storage: -80°C

Stability: ≥1 year



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

Laboratory Procedures

If aqueous stock solutions are required for biological experiments, they can best be prepared by diluting the organic solvent into aqueous buffers or isotonic saline. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations.

Description

1-Stearoyl-2-arachidonoyl-*sn*-glycerol (SAG) is a diacylglycerol (DAG) that contains stearic acid in the *sn*-1 site and arachidonic acid at the *sn*-2 position of the glycerol backbone, as is commonly found in DAG from biological phospholipids. NBD-SAG has the fluorophore nitrobenzoxadiazole (NBD) attached to the ω-end of the stearoyl chain of SAG. Fluorescently tagged lipids have been used to study their interactions with proteins, their utilization by cells and liposomes, and for the development of assays for lipid metabolism.¹⁻⁵

References

1. Wand, M., Gilbert, C.M., and Liesegang, T.J. Latanoprost and herpes simplex keratitis. *Am. J. Ophthalmol* **127**, 602-604 (1999).
2. Luo, M., Jones, S.M., Peters-Golden, M., *et al.* Nuclear localization of 5-lipoxygenase as a determinant of leukotriene B₄ synthetic capacity. *Proc. Natl. Acad. Sci. USA* **100**(21), 12165-12170 (2003).
3. Moreno, M.J., Estronca, L.M.B.B., and Vaz, W.L.C. Translocation of phospholipids and dithionite permeability in liquid-ordered and liquid-disordered membranes. *Biophys. J.* **91**, 873-881 (2006).
4. Loidl, A., Claus, R., Daigner, H.P., *et al.* High-precision fluorescence assay for sphingomyelinase activity of isolated enzymes and cell lysates. *J. Lipid Res.* **43**, 815-823 (2002).
5. Tani, M., Okino, N., Mitsutake, S., *et al.* Specific and sensitive assay for alkaline and neutral ceramidases involving C12-NBD-ceramide. *J. Biochem.* **125**, 746-749 (1999).

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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