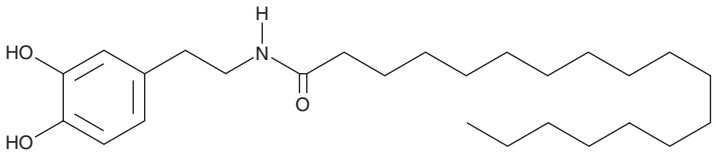
PRODUCT INFORMATION

Stearda

Item No. 38973

CAS Registry No.:	105955-10-0
Formal Name:	N-[2-(3,4-dihydroxyphenyl)ethyl]-octadecanamide
Synonyms:	N-octadecanoyl Dopamine, N-Stearoyl Dopamine
MF:	$C_{26}H_{45}NO_3$
FW:	419.6
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

Stearda is supplied as a solid. A stock solution may be made by dissolving the stearda in the solvent of choice, which should be purged with an inert gas. Stearda is soluble in DMSO. Stearda is slightly soluble in chloroform and methanol.

Description

Stearda is an endogenous fatty acid amide composed of the catecholamine dopamine (Item Nos. 36532 | 21992) conjugated to the long-chain saturated fatty acid stearic acid (Item No. 10011298).[1] It is an inhibitor of 5-lipoxygenase (5-LO; IC_{50} = 16 nM). Stearda is cytotoxic to K562 chronic myeloid leukemia cells, HOS osteosarcoma fibroblasts, and IMR-32 neuroblastoma cells but not MCF-7 breast cancer cells (IC_{50}s = 36.8, 15, 1.5, and >100 µM, respectively).[2] It potentiates calcium influx induced by the arachidonoyl amino acid and cannabinoid 1 (CB_1) receptor agonist N-arachidonoyl dopamine (NADA; Item No. 90057) in HEK293 cells expressing human transient receptor potential vanilloid 6 (TRPV6) when used at concentrations of 1 or 10 µM.[3] *In vivo*, stearda (0.1 mg/ml per paw), in combination with NADA, decreases latency to paw withdrawal in the hot plate test in rats.

References

1. Iwakami, S., Shibuya, M., Tseng, C.F., *et al.* Inhibition of arachidonate 5-lipoxygenase by phenolic compounds. *Chem. Pharm. Bull. (Tokyo)* **34(9)**, 3960-3963 (1986).
2. Akimov, M., Gretskaya, N.M., Zinchenko, G.N., *et al.* Cytotoxicity of endogenous lipids N-acyl dopamines and their possible metabolic derivatives for human cancer cell lines of different histological origin. *Anticancer Res.* **35(5)**, 2657-2662 (2015).
3. De Petrocellis, L., Chu, C.J., Moriello, A.S., *et al.* Actions of two naturally occurring saturated N-acyldopamines on transient receptor potential vanilloid 1 (TRPV1) channels. *Br. J. Pharmacol.* **143(2)**, 251-256 (2004).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM