

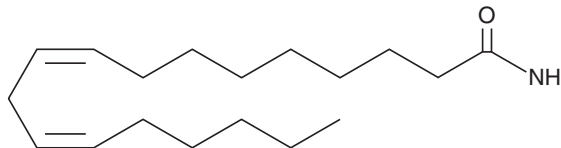
PRODUCT INFORMATION



Linoleic Acid Amide

Item No. 21055

CAS Registry No.: 3999-01-7
Formal Name: 9Z,12Z-octadecadienamide
Synonym: Linoleamide
MF: $C_{18}H_{33}NO$
FW: 279.5
Purity: $\geq 98\%$
Supplied as: A crystalline solid
Storage: $-20^{\circ}C$
Stability: ≥ 4 years



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

Laboratory Procedures

Linoleic acid amide is supplied as a crystalline solid. A stock solution may be made by dissolving the linoleic acid amide in the solvent of choice, which should be purged with an inert gas. Linoleic acid amide is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of linoleic acid amide in these solvents is approximately 22, 20, and 14 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. If an organic solvent-free solution of linoleic acid amide is needed, it can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of linoleic acid amide in PBS (pH 7.2) is approximately 50 $\mu\text{g/ml}$. We do not recommend storing the aqueous solution for more than one day.

Description

Linoleic acid amide is a primary fatty acid amide derived from linoleic acid (Item No. 90150).¹ It is reported to regulate Ca^{2+} flux by inhibiting the sarco/endoplasmic reticulum Ca^{2+} -ATPase ($IC_{50} = 15-53 \mu\text{M}$).²

References

1. Farrell, E.K., Chen, Y., Barazanji, M., *et al.* Primary fatty acid amide metabolism: Conversion of fatty acids and an ethanolamine in $N_{18}TG_2$ and SCP cells. *J. Lipid. Res.* **53(2)**, 247-256 (2012).
2. Yamamoto, S., Takehara, M. and Ushimaru, M. Inhibitory action of linoleamide and oleamide toward sarco/endoplasmic reticulum Ca^{2+} -ATPase. *Biochim. Biophys. Acta* (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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