

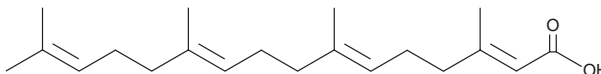
PRODUCT INFORMATION



Geranylgeranoic Acid

Item No. 9003474

CAS Registry No.: 35750-48-2
Formal Name: (2E,6E,10E)-3,7,11,15-tetramethyl-
2,6,10,14-hexadecatetraenoic acid
Synonym: GGA
MF: $C_{20}H_{32}O_2$
FW: 304.5
Purity: $\geq 95\%$
Supplied as: A solution in methyl acetate
Storage: -80°C
Stability: ≥ 2 years
Item Origin: Plant/*Schisandra chinensis*



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

Description

Geranylgeranoic acid (GGA) is an isoprenoid that has been found in *S. chinensis* and has anticancer activity.¹ It induces apoptosis in Huh7 and PLC/PRF/5 human hepatoma cells and MLE-10 transformed mouse hepatocytes, but not primary mouse hepatocytes, when used at concentrations ranging from 1 to 20 μM . GGA (10 μM) induces apoptosis in Huh7 cells via loss of the mitochondrial membrane potential and activation of interleukin-1 β -converting enzyme (ICE) and cysteine protease precursor 32 (CPP32).² It also inhibits lysine-specific demethylase 1 (LSD1; $\text{IC}_{50} = 46.97 \mu\text{M}$).³

References

1. Shidoji, Y. and Ogawa, H. Natural occurrence of cancer-preventive geranylgeranoic acid in medicinal herbs. *J. Lipid Res.* **45**(6), 1092-1103 (2004).
2. Shidoji, Y., Nakamura, N., Moriwaki, H., et al. Rapid loss in the mitochondrial membrane potential during geranylgeranoic acid-induced apoptosis. *Biochem. Biophys. Res. Commun.* **230**(1), 58-63 (1997).
3. Sakane, C., Okitsu, T., Wada, A., et al. Inhibition of lysine-specific demethylase 1 by the acyclic diterpenoid geranylgeranoic acid and its derivatives. *Biochem. Biophys. Res. Commun.* **444**(1), 24-29 (2014).

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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