

Product Data Sheet

Product Name: Oleuropein aglycone

Cat. No.: GC49815

Chemical Properties

Cas. No. 31773-95-2

SMILES OC1=CC(CCOC(C[C@@H]2C(C(OC)=O)=CO[C@H](/C2=C/C)O)=O)=CC=C1O

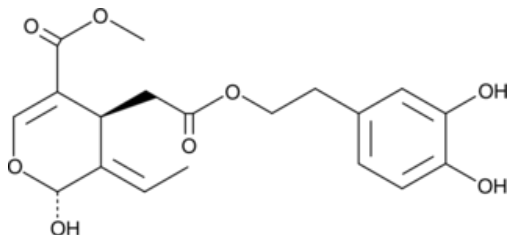
Formula C₁₉H₂₂O₈ M.Wt 378.4

Solubility Acetonitrile: slightly soluble, Ethanol: slightly soluble w/ sonication
Storage -20°C

General For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the tips ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Evaluation sample solution: ship with blue ice All other available size: ship with RT, or Condition blue ice upon request.

Structure



Background

Oleuropein aglycone is a polyphenol and an aglycone form of oleuropein that has been found in extra virgin olive oil and has diverse biological activities.^{1,2,3,4} It is formed from oleuropein via enzymatic, acidic, or acetyl hydrolysis.¹ Dietary administration of oleuropein aglycone (50 mg/kg of food) increases the number of neuronal autophagic vesicles and reverses cognitive deficits in a *TgCRND8* transgenic mouse model of Alzheimer's disease.² It also decreases cortical and hippocampal levels of histone deacetylase 2 (HDAC2) and restores long-term potentiation in the same model. Oleuropein aglycone increases urinary norepinephrine, as well as interscapular brown adipose tissue epinephrine and UCP1 protein levels, and decreases plasma leptin levels and total abdominal cavity adipose tissue weight in a rat model of high-fat diet-induced obesity.³ It also reduces lung neutrophil infiltration, lipid peroxidation, and IL-1 β levels in a mouse model of

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

carrageenan-induced pleurisy.⁴

1.Xu, F., Li, Y., Zheng, M., et al.Structure properties, acquisition protocols, and biological activities of oleuropein aglyconeFront. Chem.6239(2018) 2.Cordero, J.G., García-Escudero, R., Avila, J., et al.Benefit of oleuropein aglycone for Alzheimer's disease by promoting autophagyOxid. Med. Cell. Longev.5010741(2018) 3.Oi-Kando, Y., Iwasaki, Y., Nakamura, T., et al.Oleuropein aglycone enhances UCP1 expression in brown adipose tissue in high-fat-diet-induced obese rats by activating β -adrenergic signalingJ. Nutr. Biochem.40209-218(2017) 4.Impellizzeri, D., Esposito, E., Mazzone, E., et al.The effects of oleuropein aglycone, an olive oil compound, in a mouse model of carrageenan-induced pleurisyClin. Nutr.30(4)533-540(2011)

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA