

Product Data Sheet

Product Name: β -Glucogallin

Cat. No.: GC49769

Chemical Properties

Cas. No. 13405-60-2

SMILES O=C(C1=CC(O)=C(C(O)=C1)O)O[C@@H]2O[C@@H]([C@H]([C@@H]([C@H]2O)O)O)CO

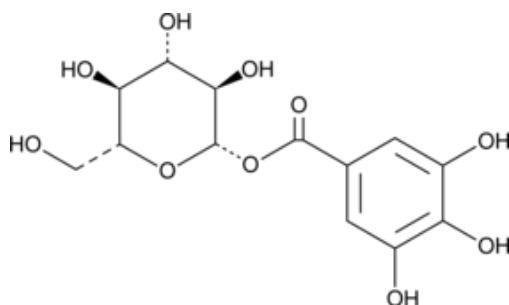
Formula $C_{13}H_{16}O_{10}$ M.Wt 332.3

Solubility DMF: 14 mg/mL, DMSO: 12 mg/mL, PBS (pH 7.2): 0.30 mg/mL Storage -20°C

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

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

Structure



Background

β -Glucogallin is a plant metabolite that has been found in *E. officinalis* and an aldose reductase 2 inhibitor ($\text{IC}_{50} = 17 \mu\text{M}$).¹ β -Glucogallin ($30 \mu\text{M}$) inhibits glucose-induced sorbitol accumulation in lenses isolated from a transgenic mouse model overexpressing *AKR1B1*, the gene encoding human aldose reductase 2. It also reduces methylglyoxal-induced increases in COX-2, IL-6, IL-8, chemokine (C-C motif) ligand 2 (CCL2), and receptor for advanced glycation end products (RAGE) levels in ARPE-19 retinal epithelial cells.²

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

1. Puppala, M., Ponder, J., Suryanarayana, P., et al. The isolation and characterization of β -glucogallin as a novel aldose reductase inhibitor from *Emblica officinalis* PLoS One 7(4):e31399 (2012)
2. Ma, Y., Liu, F., and Xu, Y. Protective effect of β -glucogallin on damaged cataract against methylglyoxal induced oxidative stress in cultured lens epithelial cells Med. Sci. Monit. 25:9310-9318 (2019)

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