

PRODUCT INFORMATION

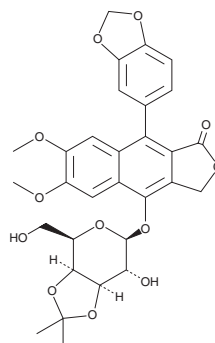


PHY34

Item No. 33584

CAS Registry No.: 2130033-55-3
Formal Name: 9-(1,3-benzodioxol-5-yl)-6,7-dimethoxy-4-[[3,4-O-(1-methylethylidene)-β-D-galactopyranosyl]oxy]-naphtho[2,3-c]furan-1(3H)-one

MF: C₃₀H₃₀O₁₂
FW: 582.6
Purity: ≥98%
UV/Vis.: λ_{max}: 263 nm
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

PHY34 is supplied as a solid. A stock solution may be made by dissolving the PHY34 in the solvent of choice, which should be purged with an inert gas. PHY34 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of PHY34 in ethanol is approximately 10 mg/ml and approximately 30 mg/ml in DMSO and DMF.

PHY34 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, PHY34 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. PHY34 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

PHY34 is an inhibitor of late-stage autophagy.¹ It is cytotoxic to OVCAR-3 and OVCAR-8 ovarian cancer cells (IC₅₀ = 4 nM for both) and induces apoptosis in the same cells when used at a concentration of 100 nM. PHY34 increases the number of LC3B puncta and induces autophagosome accumulation in HeLa cells (EC₅₀s = 1.99 and 3.86 nM, respectively). It reduces tumor growth in an OVCAR-8 mouse xenograft model when administered at a dose of 0.75 mg/kg.

Reference

1. Young, A.N., Herrera, D., Huntsman, A.C., *et al.* Phyllanthusmin derivatives induce apoptosis and reduce tumor burden in high-grade serous ovarian cancer by late-stage autophagy inhibition. *Mol. Cancer Ther.* **17**(10), 2123-2135 (2018).

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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