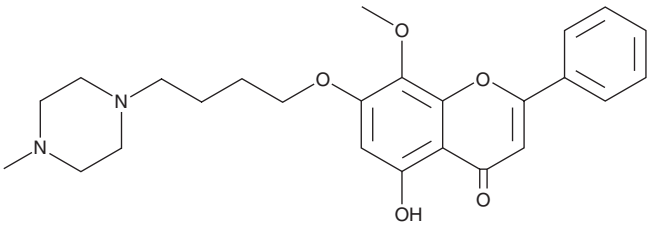
PRODUCT INFORMATION

LYG-202

Item No. 21976

CAS Registry No.:	1175077-25-4
Formal Name:	5-hydroxy-8-methoxy-7-[4-(4-methyl-1-piperazinyl)butoxy]-2-phenyl-4H-1-benzopyran-4-one
MF:	$C_{25}H_{30}N_2O_5$
FW:	438.5
Purity:	≥98%
UV/Vis.:	λ_{max}: 276 nm
Supplied as:	A crystalline 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

LYG-202 is supplied as a crystalline solid. A stock solution may be made by dissolving the LYG-202 in the solvent of choice, which should be purged with an inert gas. LYG-202 is soluble in organic solvents such as ethanol and dimethyl formamide (DMF). The solubility of LYG-202 in these solvents is approximately 2.5 and 14 mg/ml, respectively.

LYG-202 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, LYG-202 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. LYG-202 has a solubility of approximately 0.12 mg/ml in a 1:40 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

LYG-202 is a synthetic flavonoid with anticancer and anti-angiogenic activities.[1,2] It inhibits proliferation of HepG2, MCF-7, HeLa, BGC-823, MDA-MB-435, and HCT116 cancer cells *in vitro* (IC_{50}s = 4.74-27.70 µM) *via* induction of apoptosis and dissipation of the mitochondrial membrane potential.[1] LYG-202 reduces tumor growth in S180 sarcoma cell-inoculated mice. It also inhibits VEGF-stimulated human umbilical vein endothelial cell (HUVEC) migration and tube formation *in vitro* and decreases capillary sprouting in isolated rat aortic rings and the chicken chorioallantoic membrane (CAM) model of angiogenesis.[2]

References

1. Zeng, S., Liu, W., Nie, F.-f., *et al.* LYG-202, a new flavonoid with a piperazine substitution, shows antitumor effects *in vivo* and *in vitro*. *Biochem. Biophys. Res. Commun.* **385(4)**, 551-556 (2009).
2. Chen, Y., Lu, N., Ling, Y., *et al.* LYG-202, a newly synthesized flavonoid, exhibits potent anti-angiogenic activity *in vitro* and *in vivo*. *J. Pharmacol. Sci.* **112(1)**, 37-45 (2010).

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