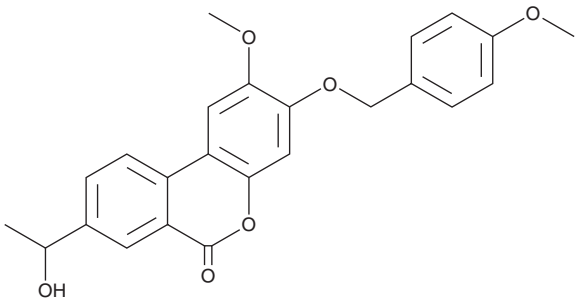
PRODUCT INFORMATION

Palomid 529

Item No. 22706

CAS Registry No.:	914913-88-5
Formal Name:	8-(1-hydroxyethyl)-2-methoxy-3-[(4-methoxyphenyl)methoxy]-6H-dibenzo[b,d]pyran-6-one
Synonyms:	P529, RES-529, SG 00529
MF:	$C_{24}H_{22}O_6$
FW:	406.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 219, 279, 315 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

Palomid 529 is supplied as a crystalline solid. A stock solution may be made by dissolving the palomid 529 in the solvent of choice. Palomid 529 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of palomid 529 in these solvents is approximately 25 and 30 mg/ml, respectively.

Palomid 529 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, palomid 529 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Palomid 529 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Palomid 529 is an inhibitor of mammalian target of rapamycin complex (mTORC) formation.[1] It is a derivative of a non-steroidal estrogen antagonist that has anti-angiogenic and anticancer activity but lacks estrogen receptor binding activity in estrogen binding assays *in vitro*. Palomid 529 inhibits VEGF-driven and bFGF-driven endothelial cell proliferation (IC_{50}s = 20 and 30 nM, respectively) and reduces VEGF-A-driven phosphorylation of AktS473, an mTORC2 substrate. *In vivo*, palomid 529 inhibits retinal neovascularization in mice with oxygen-induced retinopathy, a commonly used assay for pathogenic angiogenesis, Ad-VEGF-A-driven angiogenesis, and phosphorylation of AktS473. Palomid 529 has anticancer effects in glioma cancer cells and xenografts *via* AktS473 signaling downtstream of mTORC.

Reference

1. Xue, Q., Hopkins, B., Perruzzi, C., *et al.* Palomid 529, a novel small-molecule drug, is a TORC1/TORC2 inhibitor that reduces tumor growth, tumor angiogenesis, and vascular permeability. *Cancer Res.* **68(22)**, 9551-9557 (2008).

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