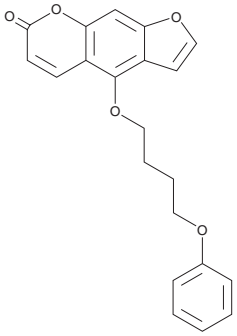
PRODUCT INFORMATION

PAP-1

Item No. 30105



CAS Registry No.:	870653-45-5
Formal Name:	4-(4-phenoxybutoxy)-7H-furo[3,2-g][1]benzopyran-7-one
Synonym:	5-(4-Phenoxybutoxy)psoralen
MF:	$C_{21}H_{18}O_5$
FW:	350.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 221, 249, 268, 309 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

PAP-1 is supplied as a solid. A stock solution may be made by dissolving the PAP-1 in the solvent of choice, which should be purged with an inert gas. PAP-1 is soluble in the organic solvent DMSO at a concentration of approximately 9 mg/ml.

Description

PAP-1 is an inhibitor of K_v1.3 voltage-gated potassium channels (EC_{50} = 2 nM at -80 mV in cells overexpressing the human channel).[1] It is selective for K_v1.3 over a panel of 22 ion channels, including potassium, sodium, calcium, and chloride channels (EC_{50}s = 45-15,000 nM for all). PAP-1 inhibits anti-CD3 antibody-induced proliferation of isolated human $CCR7^-$ effector memory T cells. *In vivo*, PAP-1 (3 mg/kg) inhibits ovalbumin-induced delayed-type hypersensitivity in rats.

Reference

1. Schmitz, A., Sankaranarayanan, A., Azam, P., *et al*. Design of PAP-1, a selective small molecule Kv1.3 blocker, for the suppression of effector memory T cells in autoimmune diseases. *Mol. Pharmacol.* **68(5)**, 1254-1270 (2005).

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