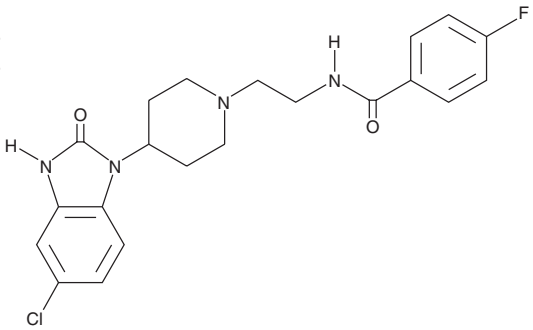
PRODUCT INFORMATION

Halopemide

Item No. 13205

CAS Registry No.:	59831-65-1
Formal Name:	N-[2-[4-(5-chloro-2,3-dihydro-2-oxo-1H-benzimidazol-1-yl)-1-piperidinyl]-ethyl]-4-fluoro-benzamide
Synonyms:	NSC 354856, R34301
MF:	$C_{21}H_{22}ClFN_4O_2$
FW:	416.9
Purity:	≥98%
UV/Vis.:	λ_{max}: 293 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

Halopemide is supplied as a crystalline solid. A stock solution may be made by dissolving the halopemide in the solvent of choice, which should be purged with an inert gas. Halopemide is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of halopemide in these solvents is approximately 10 and 20 mg/ml, respectively.

Halopemide is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, halopemide should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Halopemide has a solubility of approximately 0.1 mg/ml in a 1:9 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Halopemide is a potent inhibitor of phospholipase D (PLD), inhibiting human PLD_1 and PLD_2 *in vitro* (IC_{50} = 220 and 310 nM, respectively) and PLD activity in cells.[1] Previously, halopemide has been found to inhibit dopamine receptors and was evaluated as a neuroleptic agent.[2]

References

1. Scott, S.A., Selvy, P.E., Buck, J.R., *et al.* Design of isoform-selective phospholipase D inhibitors that modulate cancer cell invasiveness. *Nat. Chem. Biol.* **5(2)**, 108-117 (2009).
2. Seeman, P., Grigoriadis, D.E., and Niznik, H.B. Selectivity of agonists and antagonists at D_2 dopamine receptos compared to D_1 and S_2 receptors. *Drug Dev. Res.* **9**, 63-69 (1986).

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