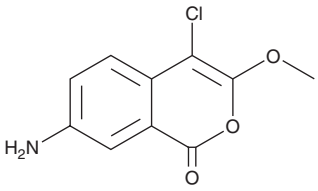
PRODUCT INFORMATION

JCP251

Item No. 28712

CAS Registry No.:	62252-26-0
Formal Name:	7-amino-4-chloro-3-methoxy-1H-2-benzopyran-1-one
Synonym:	JLK 6
MF:	$C_{10}H_8ClNO_3$
FW:	225.6
Purity:	≥95%
UV/Vis.:	λ_{max}: 238, 290 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

JCP251 is supplied as a crystalline solid. A stock solution may be made by dissolving the JCP251 in the solvent of choice, which should be purged with an inert gas. JCP251 is soluble in organic solvents such as DMSO. The solubility of JCP251 in this solvent is approximately 30 mg/ml.

JCP251 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, JCP251 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. JCP251 has a solubility of approximately 0.16 mg/ml in a 1:5 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

JCP251 is a protease inhibitor.[1] It inhibits neutrophil elastase when used at a concentration of 5 µM and reduces the activity of HIV protease and caspase-3 by 70 and 68%, respectively, when used at a concentration of 100 µM in cell-free assays.[1,2] JCP251 decreases amyloid-β (1-40) (Aβ40; Item No. 21617) and Aβ42 (Item No. 20574) levels in HEK293 cells expressing wild-type and Swedish mutant amyloid precursor peptide (APP; IC_{50}s = ~30 µM for both).[3]

References

1. Harper, J.W. and Powers, P.C. 3-Alkoxy-7-amino-4-chloroisocoumarins: A new class of suicide substrates for serine proteases. *J. Am. Chem. Soc.* **106(24)**, 7618-7619 (1984).
2. Bihel, F., Quéléver, G., Lelouard, H., *et al.* Synthesis of new 3-alkoxy-7-amino-4-chloro-isocoumarin derivatives as new β-amyloid peptide production inhibitors and their activities on various classes of protease. *Bioorg. Med. Chem.* **11(14)**, 3141-3152 (2003).
3. Petit, P., Pasini, A., da Costa, C.A., *et al.* JLK isocoumarin inhibitors: Selective γ-secretase inhibitors that do not interfere with notch pathway in vitro or in vivo. *J. Neurosci. Res.* **74(3)**, 370-377 (2003).

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