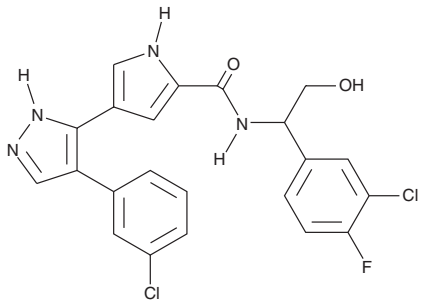
PRODUCT INFORMATION

CAY10561

Item No. 10010043

CAS Registry No.:	933786-58-4
Formal Name:	N-[1-(3-chloro-4-fluorophenyl)-2-hydroxyethyl]-4-[4-(3-chlorophenyl)-1H-pyrazol-3-yl]-1H-pyrrole-2-carboxamide
Synonym:	Pyrazolylpyrrole ERK Inhibitor
MF:	$C_{22}H_{17}Cl_2FN_4O_2$
FW:	459.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 270 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

CAY10561 is supplied as a crystalline solid. A stock solution may be made by dissolving the CAY10561 in an organic solvent purged with an inert gas. CAY10561 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of CAY10561 in these solvents is approximately 5, 1.5, and 2.5 mg/ml, respectively.

CAY10561 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CAY10561 should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. CAY10561 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

The extracellular signal-regulated kinase (ERK) signal transduction pathway regulates a diverse array of cellular processes. These processes include cell survival, proliferation, motility, and differentiation and is constitutively activated in cancers involving lung, colon, pancreas, kidney, and ovary.[1] CAY10561 is a potent, ATP-competitive inhibitor of ERK2 (K_i = 2 nM).[2] This compound is highly selective for ERK2 compared to other kinases such as PKA (K_i = 0.39 µM) and JNK3 (K_i = 4 µM).[2] CAY10561 inhibits proliferation of COLO 205 cells with an IC_{50} value of 0.54 µM.[2]

References

1. Junttila, M.R., Li, S.-P., and Westermarck, J. Phosphatase-mediated crosstalk between MAPK signaling pathways in the regulation of cell survival. *FASEB J.* **22**, 1-12 (2008).
2. Aronov, A.M., Baker, C., Bemis, G.W., *et al.* Flipped out: Structure-guided of selective pyrazolylpyrrole ERK inhibitors. *J. Med. Chem.* **50**, 1280-1287 (2007).

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