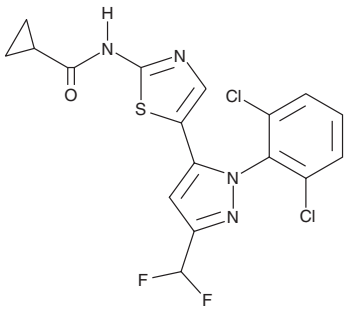
PRODUCT INFORMATION

BMS-3

Item No. 19421

CAS Registry No.:	1338247-30-5
Formal Name:	N-[5-[1-(2,6-dichlorophenyl)-3-(difluoromethyl)-1H-pyrazol-5-yl]-2-thiazolyl]-cyclopropanecarboxamide
MF:	$C_{17}H_{12}Cl_2F_2N_4OS$
FW:	429.3
Purity:	≥95%
UV/Vis.:	λ_{max}: 299 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

BMS-3 is supplied as a crystalline solid. A stock solution may be made by dissolving the BMS-3 in the solvent of choice. BMS-3 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of BMS-3 in these solvents is approximately 1, 25, and 15 mg/ml, respectively.

BMS-3 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, BMS-3 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. BMS-3 has a solubility of approximately 0.2 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

BMS-3 is a potent inhibitor of activated LIM domain kinases LIMK1 and LIMK2 (IC_{50}s = 5 and 6 nM, respectively).[1] It is used to study the role of activated LIMK isoforms in the signaling of Rho family GTPases to cytoskeletal proteins, including cofilin and tubulin.[2-4]

References

1. Ross-Macdonald, P., de Silva, H., Guo, Q., *et al.* Identification of a nonkinase target mediating cytotoxicity of novel kinase inhibitors. *Mol. Cancer Ther.* **7(11)**, 3490-3498 (2008).
2. Li, X., Zhu, Y., Cao, Y., *et al.* LIM kinase activity is required for microtubule organising centre positioning in mouse oocyte meiosis. *Reprod. Fertil. Dev.* (2016).
3. Romarowski, A., Battistone, M.A., La Spina, F.A., *et al.* PKA-dependent phosphorylation of LIMK1 and Cofilin is essential for mouse sperm acrosomal exocytosis. *Dev. Biol.* **405(2)**, 237-249 (2015).
4. Sari-Hassoun, M., Clement, M.-J., Hamdi, I., *et al.* Cucurbitacin I elicits the formation of actin/phospho-myosin II co-aggregates by stimulation of the RhoA/ROCK pathway and inhibition of LIM-kinase. *Biochem. Pharmacol.* **102**, 45-63 (2016).

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