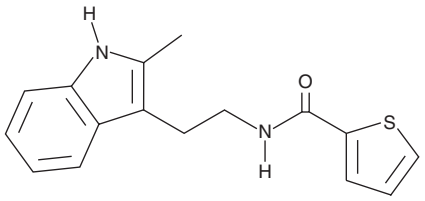
PRODUCT INFORMATION

CK-636

Item No. 16243

CAS Registry No.:	442632-72-6
Formal Name:	N-[2-(2-methyl-1H-indol-3-yl)ethyl]-2-thiophenecarboxamide
MF:	$C_{16}H_{16}N_2OS$
FW:	284.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 226, 273 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

CK-636 is supplied as a crystalline solid. A stock solution may be made by dissolving the CK-636 in the solvent of choice, which should be purged with an inert gas. CK-636 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of CK-636 in ethanol is approximately 20 mg/ml and approximately 30 mg/ml in DMSO and DMF.

CK-636 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CK-636 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. CK-636 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

CK-636 is an inhibitor of Arp2/3 complex action that binds the complex and inhibits actin polymerization *in vitro*, using human, bovine and fission yeast proteins (IC_{50}s = 4, 32, and 24 µM, respectively).[1] It is cell permeable, as it prevents actin polymerization and the formation of actin filament comet tails by *Listeria* in infected SKOV3 cells (IC_{50} = 22 µM).[1] CK-636 is used to explore the role of Arp2/3 complex in cellular functions, including epidermal barrier formation and T cell migration.[2,3]

References

1. Nolen, B.J., Tomasevic, N., Russell, A., *et al.* Characterization of two classes of small molecule inhibitors of Arp2/3 complex. *Nature* **460(7258)**, 1031-1034 (2009).
2. Zhou, K., Muroyama, A., Underwood, J., *et al.* Actin-related protein2/3 complex regulates tight junctions and terminal differentiation to promote epidermal barrier formation. *Proc. Natl. Acad. Sci. USA* **110(40)**, E3820-E3829 (2013).
3. Kwon, K.W., Park, H., and Doh, J. Migration of T cells on surfaces containing complex nanotopography. *PLoS One* **8(9)**, e73960 (2013).

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