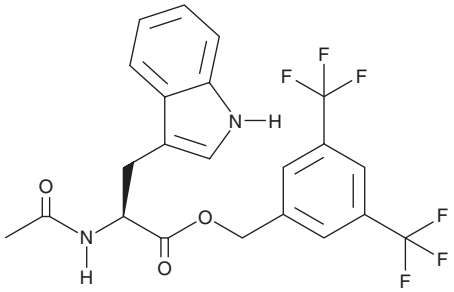
PRODUCT INFORMATION

L-732,138

Item No. 30894

CAS Registry No.:	148451-96-1
Formal Name:	N-acetyl-L-tryptophan [3,5-*bis*(trifluoromethyl)phenyl] methyl ester
MF:	$C_{22}H_{18}F_6N_2O_3$
FW:	472.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 221 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

L-732,138 is supplied as a crystalline solid. A stock solution may be made by dissolving the L-732,138 in the solvent of choice, which should be purged with an inert gas. L-732,138 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of L-732,138 in these solvents is approximately 30 mg/ml.

Description

L-732,138 is a neurokinin-1 (NK_1) receptor antagonist (IC_{50} = 1.6 nM in CHO cells expressing the human receptor).[1] It is selective for NK_1 over NK_2 and NK_3 receptors (IC_{50}s = >5,000 nM for both). L-732,138 inhibits the growth of COLO 858, MEL HO, and COLO 679 melanoma cells (IC_{50}s = 44.6, 76.3, and 64.2 µM, respectively), as well as induces apoptosis in these cell lines.[2] It inhibits plasma extravasation induced by substance P (Item No. 24035) in guinea pigs (ID_{50} = 8 mg/kg, i.p.).[1] L-732,138 attenuates mechanical allodynia and cold hyperalgesia in a rat model of neuropathic pain induce by chronic constriction injury of the sciatic nerve.[3]

References

1. MacLeod, A.M., Merchant, K.J., Brookfield, F., *et al.* Identification of L-tryptophan derivatives with potent and selective antagonist activity at the NK_1 receptor. *J. Med. Chem.* **37(9)**, 1269-1274 (1994).
2. Muñoz, M., Rosso, M., González-Ortega, A., *et al.* The NK-1 receptor antagonist L-732,138 induces apoptosis and counteracts substance P-related mitogenesis in human melanoma cell lines. *Cancers (Basel)* **2(2)**, 611-623 (2010).
3. Cahill, C.M. and Coderre, T.J. Attenuation of hyperalgesia in a rat model of neuropathic pain after intrathecal pre- or post-treatment with a neurokinin-1 antagonist. *Pain* **95(3)**, 277-285 (2002).

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