

PRODUCT INFORMATION



NBI 74330

Item No. 28442

CAS Registry No.: 855527-92-3

Formal Name: N-[(1R)-1-[3-(4-ethoxyphenyl)-3,4-dihydro-4-oxopyrido[2,3-d]pyrimidin-2-yl]ethyl]-4-fluoro-N-(3-pyridinylmethyl)-3-(trifluoromethyl)benzeneacetamide

MF: C₃₂H₂₇F₄N₅O₃

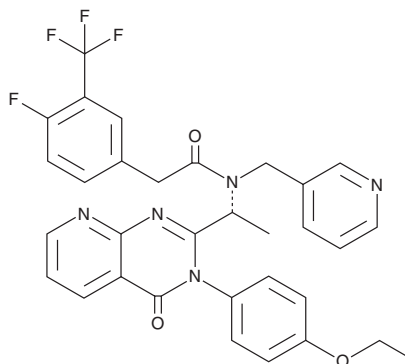
FW: 605.6

Purity: ≥98%

Supplied as: A 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

NBI 74330 is supplied as a solid. A stock solution may be made by dissolving the NBI 74330 in the solvent of choice, which should be purged with an inert gas. NBI 74330 is soluble in the organic solvent DMSO.

Description

NBI 74330 is a chemokine (C-X-C motif) receptor 3 (CXCR3) antagonist ($K_i = 3.6$ nM in a radioligand binding assay).¹ It inhibits calcium mobilization induced by chemokine (C-X-C motif) ligand 10 (CXCL10) or CXCL11 in RBL cells expressing human CXCR3 ($IC_{50} = 7$ nM for both). NBI 74330 inhibits CXCL11-induced chemotaxis of CXCR3-expressing H9 cells and PHA and IL-2 differentiated T cells (IC_{50} s = 3.9 and 6.6 nM, respectively). *In vivo*, NBI 74330 (100 mg/kg) reduces peritoneal lymphocyte migration in a mouse model of peritonitis.² It reduces the size and number of aortic arch atherosclerotic lesions in *Ldlr*^{-/-} mice. NBI 74330 reduces spinal cord microglial activation and levels of CXCL4, CXCL9, and CXCL10 and decreases thermal and mechanical hyperalgesia in a rat model of chronic constriction injury-induced neuropathic pain.³

References

1. Heise, C.E., Pahuja, A., Hudson, S.C., *et al.* Pharmacological characterization of CXC chemokine receptor 3 ligands and a small molecule antagonist. *J. Pharmacol. Exp. Ther.* **313**(3), 1263-1271 (2005).
2. van Wanrooij, E.J., de Jager, S.C., van Es, T., *et al.* CXCR3 antagonist NBI-74330 attenuates atherosclerotic plaque formation in LDL receptor-deficient mice. *Arterioscler. Thromb. Vasc. Biol.* **28**(2), 251-257 (2007).
3. Piotrowska, A., Rojewska, E., Pawlik, K., *et al.* Pharmacological blockade of CXCR3 by (±)-NBI-74330 reduces neuropathic pain and enhances opioid effectiveness - evidence from *in vivo* and *in vitro* studies. *Biochim. Biophys. Acta Mol. Basis Dis.* **1864**(10), 3418-3437 (2018).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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