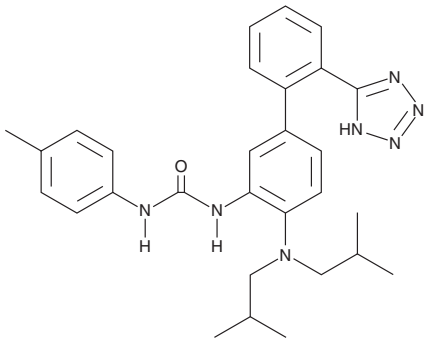
PRODUCT INFORMATION

IDO-IN-2

Item No. 34876

CAS Registry No.:	1668565-74-9
Formal Name:	N-[4-[*bis*(2-methylpropyl)amino]-2′-(2H-tetrazol-5-yl)[1,1′-biphenyl]-3-yl]-N′-(4-methylphenyl)-urea
Synonym:	PCC0208009
MF:	$C_{29}H_{35}N_7O$
FW:	497.6
Purity:	≥98%
UV/Vis.:	λ_{max}: 257 nm
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

IDO-IN-2 is supplied as a solid. A stock solution may be made by dissolving the IDO-IN-2 in the solvent of choice, which should be purged with an inert gas. IDO-IN-2 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of IDO-IN-2 in ethanol is approximately 2 mg/ml and approximately 10 mg/ml in DMSO and DMF.

Description

IDO-IN-2 is an inhibitor of indoleamine 2,3-dioxygenase 1 (IDO1; IC_{50} = 0.097 µM in HeLa cells).[1] *In vivo*, IDO-IN-2 (100 mg/kg) decreases intratumor levels of Ki67, a marker of cell proliferation, and reduces tumor weight in a GL261 murine glioma heterotopic transplantation model.[2] It also decreases mechanical and thermal hypersensitivity, improves novel object recognition, and decreases anterior cingulate cortex (ACC) and amygdala levels of IDO1 in a rat model of neuropathic pain induced by spinal nerve ligation (SNL).[3]

References

1. Williams, D.K., Markwalder, J.A., Balog, A.J., *et al.* Development of a series of novel *o*-phenylenediamine-based indoleamine 2,3-dioxygenase 1 (IDO1) inhibitors. *Bioorg. Med. Chem. Lett.* **28(4)**, 732-736 (2018).
2. Sun, S., Du, G., Xue, J., *et al.* PCC0208009 enhances the anti-tumor effects of temozolomide through direct inhibition and transcriptional regulation of indoleamine 2,3-dioxygenase in glioma models. *Int. J. Immunopathol. Pharmacol.* **32**, 2058738418787991 (2018).
3. Wang, Y., Li, C.-M., Han, R., *et al.* PCC0208009, an indirect IDO1 inhibitor, alleviates neuropathic pain and co-morbidities by regulating synaptic plasticity of ACC and amygdala. *Biochem. Pharmacol.* **177**, 113926 (2020).

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