
ONX-0914

产品编号: D50782

CAS: 960374-59-8

分子式: C₃₁H₄₀N₄O₇

纯度: ≥98%

InChi: InChI=1S/C₃₁H₄₀N₄O₇/c1-21(32-27(36)19-35-13-15-41-16-14-35)29(38)34-26(18-23-9-11-24(40-3)12-10-23)30(39)33-25(28(37)31(2)20-42-31)17-22-7-5-4-6-8-22/h4-12,21,25-26H,13-20H2,1-3H3,(H,32,36)(H,33,39)(H,34,38)/t21-,25-,26-,31-/m0/s1

InChi Key: WQAVPPWWLLVGFK-FRDWYVIJSA-N

Smiles: C[C@H](NC(=O)CN1CCOCC1)C(=O)N[C@@H](CC1C=CC(=CC=1)OC)C(=O)N[C@@H](CC1C=CC(=CC=1)C(=O)[C@]1(C)CO1

外观: 固体粉末

作用通路: Proteasome

溶解性: DMSO up to 100 mM

保存条件: Store in dry, dark place for one year.

产品介绍: ONX-0914 is an immunoproteasome inhibitor. It selectively inhibits low molecular mass polypeptide-7 (LMP7, encoded by Psmb8), the chymotrypsin-like subunit of the immunoproteasome, with an IC₅₀ < 100 nM. It blocked presentation of LMP7-specific, MHC-I-restricted antigens in vitro and in vivo with minimal cross-reactivity for the constitutive proteasome. Selective inhibition of LMP7 by ONX-0914 blocked production of interleukin-23 (IL-23) by activated monocytes and interferon-gamma and IL-2 by T cells. In mouse models of rheumatoid arthritis and lupus, ONX-0914 treatment reversed signs of disease and resulted in reductions in cellular infiltration, cytokine production and autoantibody levels at well-tolerated doses. ONX 0914 is a good chemical probe to reveal a unique role for LMP7 in controlling pathogenic immune responses and provide a therapeutic rationale for autoimmune disorders, such as rheumatoid arthritis, inflammatory bowel disease and lupus.