

ONX-0914 (PR-957)

Cat. # F1410, F1411

Also Known as: ONX 0914; ONX0914; ONX-0914; PR-957

Formula: $C_{31}H_{40}N_4O_7$

MW: 580.7 Da

CAS No.: 960374-59-8

Source: Synthetic

Form: Lyophilized powder

Solubility: Soluble in DMSO

Concentration: N/A

Quality Assurance: >98% by HPLC and NMR

Description: ONX-0914, also known as PR-957, is a potent inhibitor of the immunoproteasome with minimal cross-reactivity for the constitutive proteasome. ONX-0914 selectively inhibits low-molecular mass polypeptide-7 (LMP7), the subunit specific for the immunoproteasome that catalyzes the chymotrypsin-like activity, with an $IC_{50} < 100$ nM. Cell culture and animal studies have shown that ONX-0914 blocks the production of proinflammatory cytokines including interleukin-6 and 17, indicating that it has potential uses in the treatment of some autoimmune diseases such as rheumatoid arthritis, inflammatory bowel disease and lupus.

Dose: 0.1-0.5 μ M for in vitro or cell culture assays; intravenous or subcutaneous administration at 2-10 mg/Kg daily for 5-7 days for animal studies.

Storage: Eligible for room temperature shipping. Store at $-80^{\circ}C$ upon receiving; avoid multiple freeze-thaw cycles after dissolving in DMSO.

Literature:

1. Muchamuel T, *et al.* (2009) Nat Med. 15(7):781-7.
2. Basler M, *et al.* (2010) J Immunol. 185(1):634-41.
3. Kalim KW, *et al.* (2012) J Immunol. 189(8):4182-93.

