

DJ001, PTP σ inhibitor

Catalog	Unit
TBI3800-5MG	5 mg
TBI3800-25MG	25 mg

Product Details

Formal Name: (Z)-3-((3-Nitrophenyl)amino)-1-phenylprop-2-en-1-one

Molecular Formula: C₁₅H₁₂N₂O₃

Formula Weight: 268.30

CAS Number: 2161305-12-8

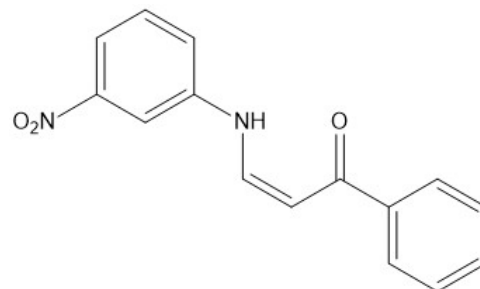
Purity: >98%

Formulation: powder

Solubility: Soluble in DMSO up to 50 mg/ml, or Ethanol (10 mg/ml with warming)

Storage: -20°C

Stability: \geq 2 years.



Applications

PTP σ inhibitor

Functions

Potent and specific inhibitor of receptor type protein tyrosine phosphatase-sigma (PTP σ) IC₅₀=1.54 μ M and >10 μ M for 20 other phosphatases. Promotes hematopoietic stem cell regeneration in vivo. In mice treated with 5-fluorouracil or radiation, DJ001 promoted HSC regeneration accelerated hematologic recovery and improved survival. The mode of inhibition of PTPs is via non-competitive allosteric binding. Suppression of radiation-induced HSC apoptosis occurs via activation of Rho GTPase, Rac1 and induction of BCL-XL. Treatment of irradiated human HSCs with DJ001 promotes the regeneration of human HSCs capable of multilineage in vivo repopulation.

Application Procedures

First dissolved in DMSO up to 50 mg/ml, or Ethanol (10 mg/ml with warming), then diluted to aqueous buffer. Solutions in DMSO or ethanol may be stored at -20°C for up to 3 months.

For research use only.