
Product Data Sheet

Product Name: TNF- α -IN-2

Cat. No.: GC63231

Chemical Properties

Cas. No. 2074702-04-6

Formula C₂₅H₂₁ClF₂N₆O

M.Wt

494.92

Solubility

Storage

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure

Background

TNF- α -IN-2 is a potent and orally active inhibitor of tumor necrosis factor alpha (TNF α), with an IC₅₀ of 25 nM in the HTRF assay. TNF- α -IN-2 distorts the TNF α trimer upon binding, leading to aberrant signaling when the trimer binds to TNFR1. TNF- α -IN-2 can be used for the research of rheumatoid arthritis[1].

TNF- α -IN-2 (compound 42) (30 min) inhibits the E-selectin expression induced by soluble TNF α in HUVECs, with an IC₅₀ of 30 nM[1].

TNF- α -IN-2 (5-25 mg/kg; p.o. 1 h before TNF stimulation) inhibits TNF-induced IL-6 in mice[1]. TNF- α -IN-2 (2-10 mg/kg; p.o. twice daily for 10 d) dose dependently reduces both the clinical score as well as the levels of inflammatory cytokines and leukocyte cell surface receptors in mice[1]. TNF- α -IN-2 (0.5 mg/kg; i.v.) exhibits long t_{1/2} (6.2 h), low CL (6.6 mL/min•kg), and V_{ss} (3.2 L/kg) in mice[1]. TNF- α -IN-2 (2 mg/kg; p.o.) exhibits good oral bioavailability (58%), C_{max} (0.47 μ M), and AUC_{tot} (5.9 μ M•h) in mice[1].

[1]. Xiao HY, et, al. Biologic-like In Vivo Efficacy with Small Molecule Inhibitors of TNF α Identified Using Scaffold Hopping and Structure-Based Drug Design Approaches. J Med Chem. 2020 Dec 1.

Caution: Product has not been fully validated for medical applications. For research use only.

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