

Product Data Sheet

Product Name: LDLRAP1-IN-1

Cat. No.: GC81768

Chemical Properties

Cas. No. 3093624-24-6

Formula $C_{21}H_{14}ClN_5O_4$ M.Wt 435.82

Solubility DMSO: 25 mg/mL (57.36 mM; ultrasonic and warming and heat to 60°C) Storage Store at 4°C, sealed storage, away from moisture

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

LDLRAP1-IN-1 (Compound B19) is a LDLRAP1 inhibitor and antiviral agent, with an IC_{50} of 4.98 μ M for disrupting the interaction between LDLRAP1 and LDLR. LDLRAP1-IN-1 covalently modifies the C119 residue of LDLRAP1 at the LDLRAP1 - LDLR binding interface, thereby disrupting the interaction between LDLRAP1 and LDLR. LDLRAP1-IN-1 exhibits antiviral activity against HCoV-OC43 [1].

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

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In Vitro, LDLRAP1-IN-1 (5 days) potently inhibits HCoV-OC43 infection in Vero E6 cells with an EC₅₀ of $1.0 \pm 0.1 \mu\text{M}$, while exhibiting low cytotoxicity (CC₅₀ = $151 \mu\text{M}$)^[1]. LDLRAP1-IN-1 (1 h) disrupts the interaction between LDLRAP1 and LDLR, with an IC₅₀ of $4.98 \mu\text{M}$, and reduces the binding affinity by 11.1-fold^[1].

References:

[1]. Huang Z, et al. Nitro-Diphenyl Ethers as Emerging Cysteine-Targeting Covalent Warheads Enable Identification of Novel Target LDLRAP1 for Anticoronaviral Activity. J Med Chem. 2026;69(5):5986-6003.

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