

LZ-07

## Chemical Properties

CAS No. :

Formula:

Molecular Weight:

Storage: Keep away from direct sunlight  
Powder: -20°C for 3 years | In solvent: -80°C for 1 year  
Actual storage temperature shall be subject to the COA.

## Biological Description

Description	LZ-07 is an IRAK4 PROTAC degrader (DC50 = 1.14 nM), that, upon degradation of IRAK4, significantly inhibits the expression of cytokines such as IL-6, IL-1 $\beta$ , TNF- $\alpha$ , and IL-10. It is applicable in research related to autoimmune diseases.
Targets(IC50)	Interleukin,IRAK,PROTACs,TNF
In vitro	LZ-07 exhibits significant degradation activity in the THP-1 cell line, achieving over 65% degradation at 10 nM and exceeding 75% at 100 nM within 16 hours. In DOHH2 and TMD8 cells, LZ-07 shows dose-dependent IRAK4 degradation, with DC50 values of 1.14 nM and 2.70 nM, respectively, over a concentration range of 0.3-300 nM within 16 hours. At 50 nM, LZ-07 induces rapid and substantial degradation within 4 hours, reaching maximum degradation (Dmax = 91%) at 16 hours in TMD8 cells, and quickly degrades IRAK4 in DOHH2 cells. At a concentration of 30 nM over 8 hours, LZ-07 mediates IRAK4 degradation via the ubiquitin-proteasome system, depending on its interaction with IRAK and CRBN. Additionally, LZ-07 exhibits excellent inhibitory effects on four key inflammatory cytokines (IL-6, IL-10, IL-1 $\beta$ , and TNF- $\alpha$ ) in LPS (100 ng/mL) stimulated PBMCs at concentrations between 3.9-7.6 nM over 2 hours.

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