Product Data Sheet

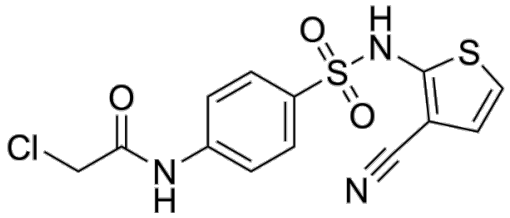
Product Name: SHP1-IN-2
Cat. No.: GC81519

Chemical Properties

Cas. No.

Formula	$C_{13}H_{10}ClN_3O_3S_2$	M.Wt	355.82
Solubility	DMSO: 100 mg/mL (281.04 mM; Need ultrasonic)	Storage	Store at 4°C, protect from light
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

SHP1-IN-2 is a selective and orally active SHP1 inhibitor. SHP1-IN-2 covalently binds to Cys480 of

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SHP1. SHP1-IN-2 elicits potent antitumor immunity and suppresses syngeneic tumor growth. SHP1-IN-2 blocks tumor progression in a svngeneic cancer model by activating natural killer cells and cytotoxic CD8 ＋ T cells, along with reduced T cel l. SHP1-IN-2 can be used for cancer-related research [1].

In Vivo, SHP1-IN-2 (M029) (25 mg/kg, 100 mg/kg; once daily) significantly suppresses tumor growth in MC38 colon cancer syngeneic mouse models[1]. SHP1-IN-2 (25 mg/kg; once daily) increases infiltration and activation of NK cells and CD8+ T cells, reduces the proportion of PD-1+ TIM3+ exhausted T cells in MC38 tumor tissues, shows no obvious toxicity or body weight loss in tumor-bearing mice, and loses antitumor efficacy in CD8+ T cell-depleted mice and nude mice[1].

In Vitro, SHP1-IN-2 (M029) (up to 50 μM; 24-72 h) shows no obvious cytotoxicity in Jurkat T, HEK293, MC38, EO771, B16-F10, and Raw264.7 cells[1]. SHP1-IN-2 (0-20 μM; Anti-CD3 Antibody (OKT-3) stimulation for 10 min) enhances the phosphorylation of LCK, PLCγ, and ERK1/2 and promotes IL-2 production in TCR-stimulated Jurkat T cells[1].

References:
[1]. Qu Z, et al. Discovery of a First-in-Class Covalent Allosteric SHP1 Inhibitor with Immunotherapeutic Activity. Angew Chem Int Ed Engl. 2026;65(7):e25126.

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