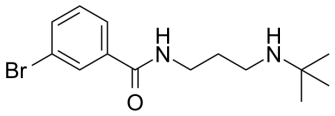
UNC-2170

Cat. No.:	HY-115531
CAS No.:	1648707-58-7
Molecular Formula:	$C_{14}H_{21}BrN_2O$
Molecular Weight:	313.23
Target:	Others
Pathway:	Others
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

Methanol : 125 mg/mL (399.07 mM; Need ultrasonic)
DMSO : 100 mg/mL (319.25 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.1925 mL	15.9627 mL	31.9254 mL
5 mM	0.6385 mL	3.1925 mL	6.3851 mL
10 mM	0.3193 mL	1.5963 mL	3.1925 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (7.98 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (7.98 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (7.98 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

UNC-2170 is a functionally active, fragment-like ligand for 53BP1 (IC_{50}=29 μM; K_d=22 μM). UNC-2170 shows at least 17-fold selectivity for 53BP1 as compared to nine other methyl-lysine (Kme) reader proteins. 53BP1 is a Kme binding protein that plays a central role in DNA Damage Repair (DDR) pathways and is recruited to sites of double-strand breaks (DSB)[1].

In Vitro

UNC-2170 (500 μM) results in a significant increase in soluble 53BP1 as compared to untreated lysates or lysates treated with UNC2892, the negative control compound. UNC-2170 (30-100 μM; naive splenocytes cultured with LPS and IL-4 for 3.5 days) clearly phenocopies the reduction in CSR seen in 53BP1 mutant B cells[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Perfetti MT, et al. Identification of a fragment-like small molecule ligand for the methyl-lysine binding protein, 53BP1. ACS Chem Biol. 2015;10(4):1072-1081.

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