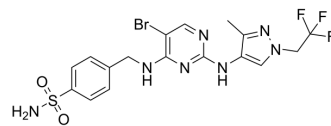


## GSK8612

Cat. No.:	HY-111941
CAS No.:	2361659-62-1
Molecular Formula:	C <sub>17</sub> H <sub>17</sub> BrF <sub>3</sub> N <sub>7</sub> O <sub>2</sub> S
Molecular Weight:	520.33
Target:	IKK
Pathway:	NF-κB
Storage:	-20°C, protect from light * In solvent : -80°C, 2 years; -20°C, 1 year (protect from light)



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : ≥ 125 mg/mL (240.23 mM)

\* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	1.9219 mL	9.6093 mL	19.2186 mL
	5 mM	0.3844 mL	1.9219 mL	3.8437 mL
	10 mM	0.1922 mL	0.9609 mL	1.9219 mL

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

#### In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.08 mg/mL (4.00 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.08 mg/mL (4.00 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.08 mg/mL (4.00 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

GSK8612 is a highly selective and potent Tank-binding Kinase-1 (TBK1) inhibitor, with a pIC<sub>50</sub> of 6.8 for recombinant TBK1<sup>[1]</sup>.

#### IC<sub>50</sub> & Target

TBK1  
6.8 (pIC<sub>50</sub>)

#### In Vitro

GSK8612 inhibits toll-like receptor (TLR)3-induced IRF3 phosphorylation in Ramos cells and type I IFN secretion in primary human mononuclear cells. In THP1 cells, GSK8612 is able to inhibit secretion of IFNβ in response to dsDNA and cGAMP, the natural ligand for STING<sup>[1]</sup>.

---

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

---

## CUSTOMER VALIDATION

- Nature. 2023 Mar;615(7950):158-167.
- Protein Cell. 2021 Apr;12(4):261-278.
- Autophagy. 2021 Aug 26;1-18.
- PLoS Biol. 2023 Mar 17;21(3):e3002039.
- Cell Death Dis. 2021 Jul 14;12(7):699.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

[1]. Thomson DW, et al. Discovery of GSK8612, a Highly Selective and Potent TBK1 Inhibitor. ACS Med Chem Lett. 2019 Mar 11;10(5):780-785.

---

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA