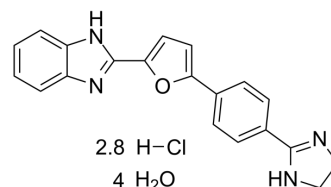


DB772 hydrate

Cat. No.:	HY-114621A
Molecular Formula:	C ₂₀ H ₁₉ ClN ₄ O ₂
Molecular Weight:	502.54
Target:	Others
Pathway:	Others
Storage:	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 4 mg/mL (7.96 mM)
* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	1.9899 mL	9.9495 mL	19.8989 mL
	5 mM	0.3980 mL	1.9899 mL	3.9798 mL
	10 mM	---	---	---

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

BIOLOGICAL ACTIVITY

Description

DB772 hydrate is a bovine viral diarrhoea virus (BVDV) inhibitor. DB772 also has anti-prion activity^[1].

In Vitro

DB772 hydrate (0-100 μM, 96 hours) can inhibit replication of the viruses BVDV2 and BDV at concentrations greater than 0.2 μM, Bungowannah virus replication at concentrations greater than 0.01 μM, and HoBi virus replication greater than 1.65 μM^[2]. DB772 hydrate has antiprion activity with CC₅₀ (50% cytotoxic concentration) value of 3.8 μM, TC-EC₅₀ (50% tissue culture effective concentration) value of 0.8 μM and inhibits PrP^{Sc} accumulation in sheep microglia^[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay^[3]

Cell Line:	PrP ^{Sc} -positive and -negative cell lines of human telomerase-immortalized (hTERT) ovine microglia
Concentration:	1 μM
Incubation Time:	4 days

Result:

Showed no significant effect on cell viability with 96.4% cell viability.
Significantly reduced PrP^{Sc}-positive spots by 65.8% and completely inhibited PrP^{Sc} accumulation in scrapie-infected primary ovine microglia at 4 μ M.

REFERENCES

- [1]. James B Stanton, et al. Discovery of a novel, monocationic, small-molecule inhibitor of scrapie prion accumulation in cultured sheep microglia and Rov cells. PLoS One. 2012;7(11):e51173.
- [2]. Benjamin W Newcomer, et al. Efficacy of an antiviral compound to inhibit replication of multiple pestivirus species. Antiviral Res. 2012 Nov;96(2):127-9.
- [3]. Kelcey D Dinkel, et al. Antiprion Activity of DB772 and Related Monothiophene- and Furan-Based Analogs in a Persistently Infected Ovine Microglia Culture System. Antimicrob Agents Chemother. 2016 Aug 22;60(9):5467-82.

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

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