Proteins

RapaBlock

Cat. No.: HY-153806 2474076-02-1 CAS No.: Molecular Formula: $C_{49}H_{74}N_{2}O_{13}$ Molecular Weight: 899.12

FKBP Target:

Pathway: Apoptosis; Autophagy; Immunology/Inflammation

Storage: Powder -20°C 3 years In solvent -80°C

6 months -20°C 1 month

Product Data Sheet

SOLVENT & SOLUBILITY

In Vitro

DMSO: 100 mg/mL (111.22 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	1.1122 mL	5.5610 mL	11.1220 mL
	5 mM	0.2224 mL	1.1122 mL	2.2244 mL
	10 mM	0.1112 mL	0.5561 mL	1.1122 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 (2.78 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE- β -CD in saline) Solubility: ≥ 2.5 mg/mL (2.78 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (2.78 mM); Clear solution

BIOLOGICAL ACTIVITY

Description	RapaBlock is a potent, non-immunosuppressive and brain-impermeable FKBP12 ligand $^{[1]}$.	
In Vitro	RapaBlock appears more effective at blocking rapamycin, restoring the phospho-S6 signal to the same level as untreated cells at 100:1 stoichiometry ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

REFERENCES

1]. Ziyang Zhang, et al. Brain-restricted mTOR inhibition with binary pharmacology. Nature. 2022 Sep;609(7928):822-828.
Caution: Product has not been fully validated for medical applications. For research use only.
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