Screening Libraries

Product Data Sheet

Cyclo(RGDyK) trifluoroacetate

Cat. No.: HY-100563 CAS No.: 250612-42-1 Molecular Formula: $C_{31}H_{43}F_{6}N_{9}O_{12}$

Molecular Weight: 847.72 RGDYK Sequence Shortening: Target: Integrin Pathway: Cytoskeleton

Storage: Sealed storage, away from moisture

> Powder -80°C 2 years -20°C 1 year

* In solvent: -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 130 mg/mL (153.35 mM)

H₂O: 100 mg/mL (117.96 mM; Need ultrasonic) * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	1.1796 mL	5.8982 mL	11.7963 mL
	5 mM	0.2359 mL	1.1796 mL	2.3593 mL
	10 mM	0.1180 mL	0.5898 mL	1.1796 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: ≥ 2.17 mg/mL (2.56 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.17 mg/mL (2.56 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: 2.17 mg/mL (2.56 mM); Clear solution; Need warming

BIOLOGICAL ACTIVITY

Description Cyclo(RGDyK) trifluoroacetate is a potent and selective $\alpha_V \beta_3$ integrin inhibitor with an IC₅₀ of 20 nM.

IC₅₀ & Target ανβ3 20 nM (IC₅₀)

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Cyclo(RGDyK) (c(RGDyK(SAA)) shows high affinity and selectivity for $\alpha_V \beta_3$ over $\alpha_V \beta_5$ (IC $_{50}$ =4000 nM) and $\alpha_{IIb} \beta_3$ (IC $_{50}$ =3000 nM) [1]

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

CUSTOMER VALIDATION

- Stem Cell Res Ther. 2022 Jul 18;13(1):327.
- Biochem Pharmacol. 2023 Sep 14;115808.
- Pharmaceuticals. 2021 Mar 14;14(3):260.

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REFERENCES

[1]. Haubner R, et al. Glycosylated RGD-containing peptides: tracer for tumor targeting and angiogenesis imaging with improved biokinetics. J Nucl Med. 2001 Feb;42(2):326-36.

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

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