Echistatin TFA

Cat. No.: HY-P1189A

Molecular Formula: $C_{219}H_{342}F_3N_{71}O_{76}S_9$

Molecular Weight: 5531.02

Sequence Shortening: ECESGPCCRNCKFLKEGTICKRARGDDMDDYCNGKTCDCPRNPHKGPAT (Disulfide bridge: Cys2-Cys11;Cys7-Cys32;Cys8-Cys37;Cys20-Cys39)

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

H_2O : 50 mg/mL (9.04 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	0.1808 mL	0.9040 mL	1.8080 mL
	5 mM	0.0362 mL	0.1808 mL	0.3616 mL
	10 mM	---	---	---

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

In Vivo

1. Add each solvent one by one: PBS
   Solubility: 50 mg/mL (9.04 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description Echistatin TFA, the smallest active RGD protein belonging to the family of disintegrins that are derived from snake venoms, is a potent inhibitor of platelet aggregation. Echistatin is a potent inhibitor of bone resorption in culture. Echistatin is a potent antagonist of $\alpha_{IIb}\beta_3$, $\alpha_v\beta_3$ and $\alpha_5\beta_1$[1][2][3][4].

IC_{50} & Target	αvβ3	α5β1	αIIbβ3

REFERENCES

[1]. J Musial, et al. Inhibition of platelet adhesion to surfaces of extracorporeal circuits by disintegrins. RGD-containing peptides from viper venoms. Circulation. 1990 Jul;82(1):261-73.

[2]. M Sato, et al. Echistatin is a potent inhibitor of bone resorption in culture. J Cell Biol. 1990 Oct;111(4):1713-23.

[3]. C C Kumar, et al. Biochemical characterization of the binding of echistatin to integrin alphavbeta3 receptor. J Pharmacol Exp Ther. 1997 Nov;283(2):843-53.

[4]. I Wierzbicka-Patynowski, et al. Structural requirements of echistatin for the recognition of alpha(v)beta(3) and alpha(5)beta(1) integrins. J Biol Chem. 1999 Dec 31;274(53):37809-14.

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