Data Sheet (Cat.No.TP3529)

TargetMol

CXCL9(74-103)

Chemical Properties

CAS No. :

Formula: C158H295N59O40

Molecular Weight:

Storage: Keep away from moisture
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	CXCL9(74-103) is a derivative peptide of CXCL9 that binds with high affinity to glycosaminoglycans (GAGs). It exhibits anti-angiogenic properties by reducing angiogenesis mediated by EGF, VEGF165, and FGF-2 in vitro, without causing cytotoxicity.
Targets(IC50)	CXCR
In vitro	CXCL9 (74-103) (0.3-3 μM; 3-4 days) reduces growth factor-induced endothelial cell proliferation, migration, adhesion, and spheroid sprouting in HMVECs. It shows no cytotoxicity at concentrations of 0.3-3 μM over 24 hours in HMVECs. At 3 μM, CXCL9 (74-103) interferes with growth factor signaling by diminishing VEGF165 binding to heparan sulfate (HS) as well as directly binding to FGF-2, demonstrating its anti-angiogenic activity through interaction with endothelial cell surface HS.
In vivo	The compound CXCL9 (74-103) effectively reduces FGF-2-induced angiogenesis in C57BL/6 mice when delivered via subcutaneous osmotic pumps (containing 400 μg/100 μL). In a corneal burn experiment with the same mice strain, administering CXCL9 (74-103) as eye drops (10 μL at 100 μg/mL, once daily for 4 days) decreases pathological corneal neovascularization. Additionally, when implanted subcutaneously via osmotic pumps (800 μg/100 μL over two weeks), CXCL9 (74-103) inhibits tumor angiogenesis in MDA-MB-231 breast cancer SCID mice. It also reduces retinal vascular leakage in diabetic rats, demonstrating an anti-angiogenic effect.

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