

CXCL9(74-103)

Cat. No.:	HY-P10301
Molecular Formula:	C ₁₅₈ H ₂₉₅ N ₅₉ O ₄₀
Molecular Weight:	3661.4
Sequence:	Lys-Lys-Lys-Gln-Lys-Asn-Gly-Lys-Lys-His-Gln-Lys-Lys-Lys-Val-Leu-Lys-Val-Arg-Lys-Ser-Gln-Arg-Ser-Arg-Gln-Lys-Lys-Thr-Thr
Sequence Shortening:	KKKQKNGKKHQKKKVLKVRKSQRSRQKKT
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description	CXCL9(74-103) is a derivative peptide of CXCL9 that has a high affinity for glycosaminoglycans (GAGs) and can bind to GAGs. CXCL9(74-103) possesses anti-angiogenic properties, capable of reducing EGF, VEGF165, and FGF-2-mediated angiogenesis processes in vitro, without exhibiting cytotoxicity ^[1] .
In Vitro	CXCL9(74-103) (0.3-3 μM; 3-4 days) reduces growth factor-induced endothelial cell proliferation, migration, (0.3-3 μM; 15 min) adhesion, and spheroid sprouting in HMVECs. CXCL9(74-103) (0.3-3 μM; 24 h) is not cytotoxic in HMVECs ^[1] . CXCL9(74-103) (3 μM) interferes with growth factor signaling by reducing VEGF165 binding to HS and directly binding to FGF-2, and relies on cell surface HS binding to endothelial cells to exert its anti-angiogenic activity ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	CXCL9(74-103) (subcutaneously implanted osmotic pump containing 400 μg/100 μL) significantly reduces FGF-2-induced Matrigel plug angiogenesis in C57BL/6 mice. CXCL9(74-103) (administered as 10 μL drops of 100 μg/mL, once daily for 4 days) reduces pathological blood vessel growth in the corneal burn model of C57BL/6 mice. CXCL9(74-103) (subcutaneously implanted osmotic pump containing 800 μg/100 μL, delivering a continuous dose over the course of two weeks) attenuates tumor angiogenesis in MDA-MB-231 breast cancer SCID mice. Additionally, CXCL9(74-103) also reduces vascular leakage in the retina of diabetic rats, demonstrating its anti-angiogenic effect ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. De Zutter A, et al. The Chemokine-Based Peptide, CXCL9(74-103), Inhibits Angiogenesis by Blocking Heparan Sulfate Proteoglycan-Mediated Signaling of Multiple Endothelial Growth Factors. *Cancers (Basel)*. 2021;13(20):5090. Published 2021 Oct 12.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA