

VEGF-CC Protein, Human (125a.a, HEK293, His)

Cat. No.:	HY-P73529
Synonyms:	Flt4-L; vascular endothelial growth factor C; VEGFC; VRP
Species:	Human
Source:	HEK293
Accession:	P49767 (T103-R227)
Gene ID:	7424
Molecular Weight:	Approximately 22.5 kDa

PROPERTIES

Biological Activity	1. Measured in a cell proliferation assay using human umbilical vein endothelial cells (HUVEC) and the ED ₅₀ is 0.1-0.5 µg/mL. 2. Measured by its binding ability in a functional ELISA. Immobilized VEGF-C-His at 2 µg/mL (100 µL/well) can bind VEGFR3-His and the EC ₅₀ is 1-10 ng/mL.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	The VEGF-CC Protein is a growth factor with significant activity in angiogenesis and endothelial cell growth, effectively stimulating their proliferation and migration while also influencing the permeability of blood vessels. This multifaceted protein is implicated in angiogenesis within both the venous and lymphatic vascular systems during embryogenesis and contributes to the maintenance of differentiated lymphatic endothelium in adults. VEGF-CC achieves these functions by binding and activating receptors KDR/VEGFR2 and FLT4/VEGFR3. Structurally, VEGF-CC exists as a homodimer, displaying a non-covalent and antiparallel arrangement. The protein's interaction with FLT4/VEGFR3 is crucial, as it is required for FLT4/VEGFR3 homodimerization and subsequent activation. These features collectively underscore the diverse roles of VEGF-CC in regulating vascular processes and highlight its significance in both developmental and adult angiogenesis.
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Caution: Product has not been fully validated for medical applications. For research use only.

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