

Human Vascular Endothelial Growth Factor-121 (hVEGF₁₂₁)



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10 μg

For Research Use Only. Not for Use in Diagnostic Procedures.

MW (kDa): 14-21	UniProt ID: #P15692-1	Entrez-Gene Id: 7422
Background		VEGF ₁₂₁ is the second most abundant splice variant of VEGF-A (1,2). VEGF ₁₂₁ is produced by endothelial cells, macrophages, T-cells and other cell types. VEGF ₁₂₁ is involved in angiogenesis, vascular endothelial cell survival, growth, migration and vascular permeability (1). VEGF ₁₂₁ expression is induced by hypoxia, inflammatory cytokines and through oncogene products in tumors (1-3). VEGF ₁₂₁ binds to VEGFR1 and VEGFR2 receptor tyrosine kinases (1). Binding of VEGF ₁₂₁ to VEGFR1 and VEGFR2 leads to activation of pathways involving PI3K/AKT, P38 MAPK, and FAK (1). VEGF plays a key role in tumor angiogenesis in many cancers (2).
Endotoxin		Less than 0.01 ng endotoxin/1µg hVEGF ₁₂₁ .
Purity		>98% as determined by SDS-PAGE of 6 μg reduced (+) and non-reduced (-) recombinant hVEGF ₁₂₁ . All lots are greater than 98% pure.
Source / Purifica	ation	Recombinant human $VEGF_{121}$ (hVEGF ₁₂₁) Ala207-Arg327 (Accession #NP_001020541.2) was expressed in human 293 cells at Cell Signaling Technology.
Bioactivity		The bioactivity of recombinant hVEGF $_{121}$ was determined in a cell proliferation assay using HUVEC. The ED $_{50}$ of each lot is between 0.5-2 ng/ml.
Background References		1. Takahashi, H. and Shibuya, M. (2005) <i>Clin Sci (Lond)</i> 109, 227-41. 2. Neufeld, G. et al. (1999) <i>FASEB J</i> 13, 9-22. 3. Robinson, C.J. and Stringer, S.E. (2001) <i>J Cell Sci</i> 114, 853-65. 4. Sarabipour, S. et al. (2016) <i>Elife</i> 5, e13876.

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