

Recombinant Rat Vascular Endothelial Growth Factor 120 (Rat VEGF120)

Product Information

Product Name	Cat#	Size
	91510ES10	10 µg
Recombinant Rat Vascular Endothelial Growth Factor 120 (Rat VEGF120)	91510ES60	100 µg
	91510ES76	500 µg

Product Description

Vascular endothelial growth factor (VEGF or VEGF-A)/vascular permeability factor (VPF), is an important signaling protein as a potent mediator of both angiogenesis and vasculogenesis. It is a member of the platelet-derived growth factor (PDGF) family, and characterized by a cysteine-knot structure and disulfide-linked homodimer. Alternately spliced isoforms of 121, 145, 165, 183, 189, and 206 amino acids (aa) have been identified in humans, with 120, 164 and 188 aa isoforms found in mouse. VEGF binds the type I transmembrane receptor tyrosine kinases VEGF R1 (also called Flt-1) and VEGF R2 (Flk-1/KDR) on endothelial cells. VEGF is required during embryogenesis to regulate the proliferation, migration, and survival of endothelial cells. In adults, VEGF functions mainly in wound healing and the female reproductive cycle. Pathologically, it is involved in tumor angiogenesis and vascular leakage. Circulating VEGF levels correlate with disease activity in autoimmune diseases such as rheumatoid arthritis, multiple sclerosis and systemic lupus erythematosus.

Product Properties

Synonyms	Vpf, Vegf, VEGFA
Source	Yeast-derived rat VEGF120 protein, Ala27-Arg146.
Molecular Weight	Approximately 18.5 kDa.
AA Sequence	MAPTTEGEQK AHEVVKFMDV YQRSYCRPIE TLVDIFQEYP DEIEYIFKPS CVPLMRCAGC CNDEALECVP TSESNVTMQI MRIKPHQSQH IGEMSFLQHS RCECRPKKDR TKPEKCDKPR R
Tag	None
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	>95% by SDS-PAGE and HPLC analyses.
Biological Activity	Measured in a cell proliferation assay using HUVEC human umbilical vein endothelial cells. The ED ₅₀ for this effect is 2-10 ng/mL. Fully biologically active when compared to standard.
Endotoxin	< 0.1 EU per 1µg of the protein by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4. We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom.
Reconstitution	Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20°C. Further dilutions should be made in appropriate buffered solutions.

Shipping and Storage

The products are shipped with ice pack and can be stored at -20°C to -80°C for 1 year.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

Cautions

1. Avoid repeated freeze-thaw cycles.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only!