

Product Datasheet

Recombinant Murine Vascular Endothelial Growth Factor 165 (rMuVEGF165) (orb1495003)

Catalog Number	orb1495003
Category	Proteins
Description	<p>VEGF was initially purified from media conditioned by normal bovine pituitary folliculo-stellate cells and by a variety of transformed cell lines as a mitogen specific for vascular endothelial cells. It was subsequently found to be identical to an independently discovered vascular permeability factor (VPF), which was previously identified in media conditioned by tumor cell lines based on its ability to increase the permeability of capillary blood vessels. Three mouse cDNA clones, which arise through alternative splicing and which encode mature mouse monomeric VEGF having 120, 164, or 188, amino acids, respectively, have been identified. Two receptor tyrosine kinases (RTKs), Flt-1 and Flk-1 (the mouse homologue of human KDR), both members of the type III subclass of RTKs containing seven immunoglobulin-like repeats in their extracellular domains, have been shown to bind VEGF with high affinity. The roles of the homodimers of KDR, Flt, and the heterodimer of KDR/Flt in VEGF signal transduction remain to be elucidated. In vivo, VEGF has been found to be a potent angiogenesis inducer.</p>
Form/Appearance	Lyophilized from a 0.2mm filtered solution in PBS, pH 7.4.
Buffer/Preservatives	Lyophilized from a 0.2mm filtered solution in PBS, pH 7.4.
Purity	>95% by SDS-PAGE and HPLC analyses
Purification	>95% by SDS-PAGE and HPLC analyses
Protein Sequence	MAPTTEGEQKSHEVIKFM DVYQRSYCRPIETLVDIFQEY PDEIEYIFK PSCVPLMRCAGCCND EAL ECVPTSES NITMQIMRIKPHQS QHIGEMSFLQHSRCECRPKKDRTKPEKHCEPC SERRK HLFVQDPQTCKCCKNTDSRCKARQLELNERTCRCDKPRR
MW	Recombinant murine VEGF165 is a 39.0 kDa disulfide-linked homodimeric protein consisting of two 165 amino acid polypeptide chains.

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Application notes	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. 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.
Endotoxins	Less than 1EU/mg of rmVEGF165 as determined by LAL method
Source	Escherichia coli.
Biological Activity	Measured by its ability to stimulate 3H-thymidine incorporation in HUVE cells. The ED50 for this effect is typically 2 - 4 ng/mL, corresponding to a Specific Activity of $\approx 2.5 \times 10^5$ IU/mg.
Storage	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.
Note	For research use only
Expiration Date	6 months from date of receipt.

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