

VEGF-E, Heparin-binding Active Protein | VEGF-E active protein

Orf Virus VEGF-E, Heparin-binding

CATALOG # AAA79120	HOST Insect Cells	REACTIVITY Orf virus
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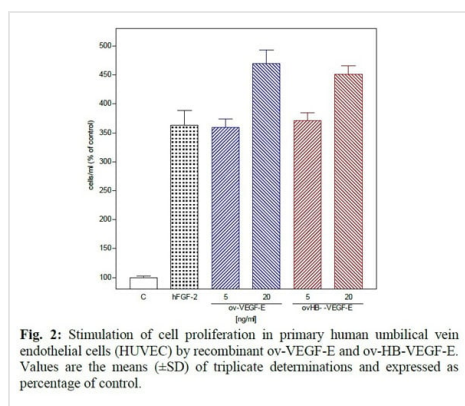
PRODUCT SYNONYMS

VEGF-E; Heparin-binding; Orf Virus VEGF-E; Recombinant ov-HB-Vascular Endothelial Growth Factor-E; ov-HB-VEGF-E; VEGF-E active protein

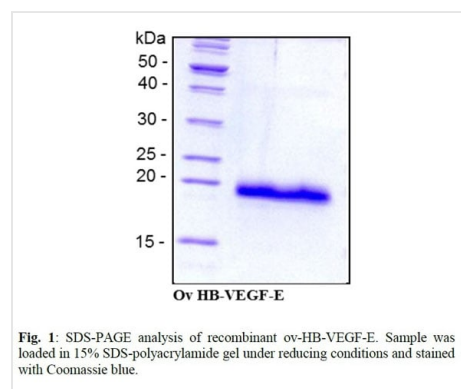
PRODUCT SPECIFICATIONS

Host	Insect Cells
Reactivity	Orf virus
Purity/Purification	> 90% by SDS-PAGE & silver stain
Form/Format	Lyophilized
Sequence	N-Terminal Sequence:U NDERWORK!
Sequence Length	154
Buffer	50 mM acetic acid
Preparation and Storage	Lyophilized samples are stable for greater than six months at -20 degree C to -70 degree C. Reconstituted HB-VEGF-E should be stored in working aliquots at -20 degree C.

IMAGES



Application Data



Application Data

ADDITIONAL INFORMATION

Related Product Information for VEGF-E active protein	A DNA sequence encoding the first 116 amino acid residue of Orf virus VEGF-E isolate D1701 (Dehio et al., 1999 EMBO J. 18:363-374; GenBank accession No. AF106020) was fused with a DNA sequence encoding to the C-terminal heparin binding domain of human VEGF165. The chimeric protein was expressed in insect cells using a baculovirus expression system. Based on sequence similarity to VEGF-A, a gene encoding a VEGF homologue has recently been discovered in the genome of Orf virus (OV) (Lyttle et al., 1994 J. Virol 68:84-92). Different isolates of orf virus show significant amino acid sequence similarity to VEGF-A and described as a viral virulence factor that appear to be derived from captured host genes. All eight cysteine residues of the central cysteine knot motif characteristic of members of the VEGF family are conserved among other residues in the VEGF-E proteins (Dehio et al., 1999 EMBO J. 18:363-374; Wise et al., 1999 Proc. Natl. Acad. Sci USA 96:3071-3076). Alignment of all mammalian VEGF sequences indicated that VEGF-E is distinct from the previously described VEGFs but most closely related to VEGF-A. Like VEGF-A, VEGF-E was found to bind with high affinity to VEGF receptor-2 (KDR) resulting in receptor autophosphorylation, whilst in contrast to VEGF-A, VEGF-E and hb-VEGF-E can not bind to VEGF receptor-1 (Flt-1). Therefore VEGF-E is a potent angiogenic factor selectively binding to VEGF receptor -2/ KDR. Compared to human VEGF165 this virus form has no heparin-binding domain and seems to be a freely secreted protein comparable to VEGF121. In order to compare this form with human VEGF165, an additional heparin-binding domain was engineered at the C-terminus to allow interaction with proteo-aminoglycans and heparan sulfate. These form is also able to interact with neuropillin -1.
Product Categories/Family for VEGF-E active protein	Cytokines & Growth Factors
References	1. Dehio et al., 1999 EMBO J. 18:363-374 2. Lyttle et al., 1994 J. Virol 68:84-92 3. Wise et al., 1999 Proc. Natl. Acad. Sci USA 96:3071-3076

NCBI AND UNIPROT INFORMATION

NCBI GI #	82040241
UniProt Accession #	Q9YMF3
Molecular Weight	44 kDa (Dimer)
NCBI Official Full Name	Vascular endothelial growth factor homolog Vegf-e
UniProt Protein Name	PP283
UniProt Entry Name	Q9YMF3_ORFV

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.