



Anti-Orf virus VEGF-E



FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	102-PA70
Size:	50 µg
Lot. No.:	According to product label
Country of origin:	Germany

Preparation: Produced from sera of rabbits immunized with highly pure recombinant ov-VEGF-E produced in E. coli.

Target Background

Synonyms:	Hepatopoietin-A, Scatter factor
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A DNA sequence encoding the mature variant of ov-VEGF-E isolate D1701 (GenBank accession No. AF106020) was expressed in E. coli as a 132 amino acid residue fusion protein with an N-terminal His-tag sequence and a thrombin cleavage site. Recombinant VEGF-E homodimer was dimerized in vitro and has a predicted mass of approximately 35 kDa.

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). Different isolates of Orf virus show significant amino acid sequence similarity to VEGF-A and described as a viral virulence factor that appears 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; Wise et al., 1999). 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 cannot bind to VEGF receptor-1 (Flt-1). Furthermore VEGF-E can also not bind to VEGF receptor-3 (FLT-4). Therefore VEGF-E is a potent angiogenic factor selectively binding to VEGF receptor -2/KDR.

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

Database References Antigen

Protein RefSeq:	AAD03735.1
Uniprot ID:	Q9YMF3
mRNA RefSeq:	AF106020.1

Product Specifications

Species reactivity	Orf virus
Clone/Ab feature	Rabbit IgG
Cross reactivity	ND
Host	rabbit
Clonality	polyclonal
Purification	Protein A purified
Immunogen	Recombinant ov-VEGF-E (RT #300-045)
Formulation	lyophilized
Buffer	PBS

Stability: The lyophilized antibody is stable at room temperature for up to 1 month. The reconstituted antibody is stable for at least two weeks at 2-8°C. Frozen aliquots are stable for at least 6 months when stored at -20°C.

Reconstitution: Centrifuge vial prior to opening. Reconstitute in sterile water to a concentration of 0.1-1.0 mg/ml.



AVOID REPEATED FREEZE AND THAW CYCLES!

Applications

Western Blot: Use 1-15 µg/ml

NOTE: OPTIMAL DILUTIONS SHOULD BE DETERMINED BY EACH LABORATORY FOR EACH APPLICATION!



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Handling/Applications

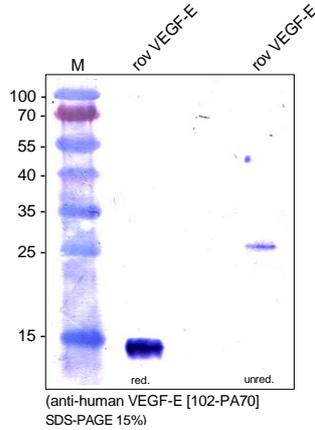


Figure 1: Western analysis of recombinant Orf virus VEGF-E using a polyclonal antibody directed against ov-VEGF-E produced in *E. coli*. The antibody recognizes the unreduced protein significantly weaker than the reduced one.

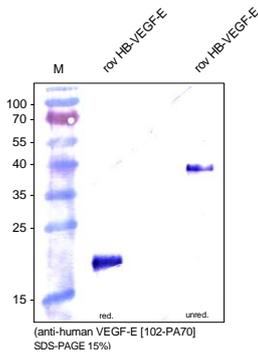


Figure 2: Western analysis of recombinant Orf virus VEGF-E using a polyclonal antibody directed against ov-HB-VEGF-E produced in insect cells. The antibody recognizes the unreduced protein significantly weaker than the reduced one.