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Product datasheet for AR31161PU-N

CD309 / VEGFR-2 / Flk-1 (esKDR) Mouse Protein

Product data:

Product Type:	Recombinant Proteins
Description:	CD309 / VEGFR-2 / Flk-1 (esKDR) mouse protein, 20 µg
Species:	Mouse
Expression Host:	Insect
Expression cDNA Clone or AA Sequence:	ASVGLTGDFL HPPKLSTQKD ILTILANTTL QITCRGQRDL DWLWPNAQRD SEERVLVTEC GGGDSIFCKT LTIPRVVGND TGAYKCSYRD VDIASTVYVY VRDYRSPFIA SVSDQHGIVY ITENKNKTVV IPCRGSISNL NVSLCARYPE KRFVPDGNRI SWDSEIGFTL PSYMISYAGM VFCEAKINDE TYQSIMYIVV VVGYRIYDVI LSPPHEIELS AGEKLVLNCT ARTELNVGLD FTWHSPPSKS HHKKIVNRDV KPFPGTVAKM FLSTLTIESV TKSDQGEYTC VASSGRMIKR NRTFVRVHTK PFIAFGSGMK SLVEATVGSQ VRIPVKYLSY PAPDIKWYRN GRPIESNYTM IVGDELTIME VTERDAGNYT VILTNPISME KQSHMVSLVV NVPPQIGEKA LISPMDSYQY GTMQTLTCTV YANPPLHHIQ WYWQLEEACS YRPGQTSPYA CKEWRHVEDF QGGNKIEVTK NQYALIEGKN KTVSTLVIQA ANVSALYKCE AINKAGRGER VISFHVIRGP EITVQPAAQP TEQESVSLLC TADRNTFENL TWYKLGSQAT SVHMGESLTP VCKNLDALWK LNGTMFSNST NDILIVAFQN ASLQDQGDYV CSAQDKKTKK RHCLVKQLII LGMEASLGDR IAMP
Predicted MW:	~ 105 kDa
Purity:	>95% by SDS-PAGE and silver stain
Buffer:	Presentation State: Purified State: Lyophilized protein Buffer System: 25 mM MES, 100 mM NaCl, pH 5.5 Stabilizer: None
Bioactivity:	Biological: Measured by its ability to inhibit the VEGF165-induced proliferation in human umbilical vein endothelial (HUVE) cells.
Endotoxin:	< 0.1 ng per µg of esKDR
Reconstitution Method:	Restore in water or PBS to a concentration of not lower than 100 µg/ml.
Preparation:	Lyophilized protein
Protein Description:	Mouse VEGFR-2/Flk-1 (native), soluble. **Subunit:** glycosylated monomer.

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Storage: Store lyophilized at 2-8°C for 6 months or at -20°C long term.
After reconstitution store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C long term.
Avoid repeated freezing and thawing.

Stability: Shelf life: one year from despatch.

Summary: Disruption of the precise balance of positive and negative molecular regulators of blood and lymphatic vessel growth can lead to myriad diseases. Although dozens of natural inhibitors of hemangiogenesis have been identified, an endogenous selective inhibitor of lymphatic vessel growth has not to our knowledge been previously described. A splice variant of the gene encoding vascular endothelial growth factor receptor-2 (VEGFR-2) that encodes a secreted form of the protein, designated endogenous soluble VEGFR-2 (esVEGFR-2/KDR) has been described. The endogenous soluble esKDR inhibits developmental and reparative lymphangiogenesis by blocking VEGF-C function. Tissue-specific loss of esKDR in mice induced, at birth, spontaneous lymphatic invasion of the normally alymphatic cornea and hyperplasia of skin lymphatics without affecting blood vasculature. Administration of esKDR inhibited lymphangiogenesis but not hemangiogenesis induced by corneal suture injury or transplantation, enhanced corneal allograft survival and suppressed lymphangioma cellular proliferation. Naturally occurring esKDR thus acts as a molecular uncoupler of blood and lymphatic vessels; modulation of esKDR might have therapeutic effects in treating lymphatic vascular malformations, transplantation rejection and, potentially, tumor lymphangiogenesis and lymphedema.