



Recombinant Human soluble CD31/PECAM-1

20141103BB



FOR RESEARCH ONLY! NOT FOR HUMAN USE!

| | |
|---------------------------|----------------------------|
| Cat.-no: | S01-071 |
| Size: | 50 µg |
| Lot. No.: | According to product label |
| Country of origin: | Germany |

Scientific Background

| | |
|------------------|--------------------------------------|
| Gene: | <i>PECAM-1</i> |
| Synonyms: | CD31 antigen, EndoCAM, PECA1, GPIIA* |

PECAM is transmembrane glycoprotein that belongs to the Ig-related superfamily of adhesion molecules. It is highly expressed at endothelial cell junctions, and is also expressed in platelets and most leukocyte sub-types. The primary function of PECAM-1 is the mediation of leukocyte-endothelial cell adhesion and signal transduction. PECAM-1 has been implicated in the pathogenesis of various inflammation-related disorders, including thrombosis, multiple sclerosis (MS), and rheumatoid arthritis. The human PECAM-1 gene codes for a 738 amino acid transmembrane glycoprotein that contains a 118 amino acid cytoplasmic domain, a 19 amino acid transmembrane domain, and a 574 amino acid extracellular domain. Recombinant human soluble PECAM-1 is a 574 amino acid glycoprotein comprising the extracellular domain of PECAM-1 fused to a C terminal His-tag (6xHis). Monomeric glycosylated PECAM-1 migrates at an apparent molecular weight of approximately 80.0-95.0 kDa by SDS-PAGE analysis under reducing conditions. The calculated molecular weight of recombinant human PECAM-1 is 64.3 kDa.

References

1. Simmons DL et al, J Exp Med 171:2147-2152, 1990
2. Stockinger H et al, J Immunol 145:3889-3897, 1990
3. Newman PJ et al, Science 247:1219-1222, 1990
4. Albelda SM et al, J Cell Biol 114:1059-1068, 1991
5. Kirschbaum NE et al, Blood 84:4028-4037, 1994
6. Tang DG et al, J Biol Chem 268:22883-22894, 1993
7. Brown S et al, Nature 418:200-203, 2002
8. Wang Y et al, Am J Physiol 284:H1008-H1017, 2003

Sequence

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QENSFTINSV DMKSLPDWTV QNGKNLTLCQ FADVSTTSHV
KPQHQMLFYK DDVLFYNISS MKSTESYFIP EVRIYDSGTY
KCTVIVNKE KTAEYQVLV EGVPSPRVTL DKKEAIQGGI
VRVNCSPVEE KAPIHFTIEK LELNEKMKVL KREKNSRDQN
FVILEFPVEE QDRVLSFRCQ ARIISGIHQ TSESTKSELV
TVTESFSTPK FHSPTGMIM EGAQLHIKCT IQVTHLAQEF
PEIIIQKDKA IVAHNRHGK AVYSVMAMVE HSGNYTCKVE
SSRISKVSSI VVNITELFSK PELESSFTHL DQGERLNLSC
SIPGAPPANF TIQKEDTIVS QTQDFTRIAS KSDSGTYICT
AGIDKVVKKS NTVQIVVCEM LSQPRISYDA QFEVIKQGTI
EVRCEISIGT LPISYQLLKT SKVLENSTKN SNDAVFKDN
PTEDVEYQCV ADNCHSHAKM LSEVLRVKVI APVDEVQISI
LSSKVVESGE DIVLQCAVNE GSGPITYKFY REKEGKPFYQ
MTSNATQAFW TRQKASKEQE GEYYCTAFNR ANHASSVPRS
KILTVRVILA PWKKTRHHHH HH
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Database References

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|------------------------|-----------|
| Protein RefSeq: | NP_000433 |
| Uniprot ID: | P16284 |
| mRNA RefSeq: | NM_000442 |

Product Specifications

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|--|---|
| Expressed in | Insect cells |
| Purity | > 98% by SDS-PAGE |
| Buffer | 0.5X PBS |
| Stabilizer | None |
| Formulation | lyophilized |
| Length (aa): | 582 |
| MW: | ~80 kDa (SDS-PAGE, reducing conditions) |
| Result by N-terminal sequencing | UNDER WORK! |

Stability: The material is stable for greater than six months at -20° C to -70° C. After the first thawing it is recommended to aliquote the material, because repeated freeze-thaw cycles will decrease the activity.

Reconstitution: The lyophilized human sCD31 is soluble in water and most aqueous buffers; it should be reconstituted in water or PBS to a concentration of not lower than 100µg/ml.



AVOID REPEATED FREEZE AND THAW CYCLES!

Biological Activity: No biological data available at the moment.



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Handling/Application

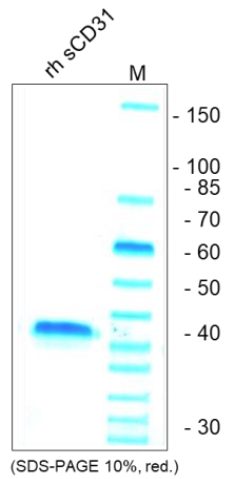


Fig. 1: SDS-PAGE analysis of recombinant human soluble CD31 produced in insect cells. Sample was loaded in 10% SDS-polyacrylamide gel under reducing condition and stained with Coomassie blue.