VCAM-1 Human HEK293 cells

Product Data Sheet

Type: Recombinant
Source: HEK293 cells
Species: Human
Other names: Vascular cell adhesion protein 1, CD106 antigen

Cat. No.:

RBG10340010	(10 µg)
RBG10340050	(50 µg)
RBG10340100	(100 µg)

Description

VCAM is a 110 kDa, cell surface integral membrane glycoprotein that belongs to the Ig-related superfamily of adhesion molecules. The primary function of VCAM-1 is the mediation of leukocyte-endothelial cell adhesion and signal transduction. VCAM-1 may play a vital role in the development of several diseases, including atherosclerosis and rheumatoid arthritis. The human VCAM-1 gene codes for a 715 amino acid transmembrane glycoprotein containing a 19 amino acid cytoplasmic domain, a 22 amino acid transmembrane domain, and a 674 amino acid extracellular domain. Recombinant Human VCAM-1 is a 74.1 kDa glycoprotein comprising the extracellular domain (674 amino acid residues) of VCAM-1. Monomeric glycosylated VCAM-1 migrates at an apparent molecular weight of approximately 90.0 kDa by SDS-PAGE analysis under reducing conditions.

Introduction to the Molecule

VCAM-1 is a member of the immunoglobulin gene superfamily. It is present on tissue macrophages, dendritic cells, bone marrow fibroblasts, myoblasts and myotubes. Increased levels of sVCAM-1 can be detected in several diseases: cancer, autoimmune diseases, infections, inflammation and others.

Research topic

Cell adhesion proteins

Amino Acid Sequence

```
FKIETTPESR YLAQIGDSVS LTCSTTGCES PFFSWRTQID SPLNGKVTNE GTTSTLTMNP VSFGNEHSYL CTATCESRKL
EKGIQVEIYS FPKDPEIHLS GPLEAGKPIT VKCSVADVYP FDRLEIDLLK GDHLMKSQEF LEDADRKSLE TKSLEVTFTP
VIEDIGKVLV CRAKLHIDEM DSVPTVRQAV KELQVYISPK NTVISVNPST KLQEGGSVTM TCSSEGLPAP EIFWSKKLDN
GNLQHLSGNA TLTLIAMRME DSGIYVCEGV NLIGKNRKEV ELIVQEKPFT VEISPGPRIA AQIGDSVMLT CSVMGCESPS
FSWRTQIDSP LSGKVRSEGT NSTLTLSPVS FENEHSYLCT VTCGHKKLEK GIQVELYSFP RDPEIEMSGG LVNGSSVTVS
CKVPSVYPLD RLEIELLKGE TILENIEFLE DTDMKSLENK SLEMTFIPTI EDTGKALVCQ AKLHIDDMEF EPKQRQSTQT
LYVNVAPRDT TVLVSPSSIL EEGSSVNMTC LSQGFPAPKI LWSRQLPNGE LQPLSENATL TLISTKMEDS GVYLCEGINQ
AGRSRKEVEL IIQVTPKDIK LTAFPSESVK EGDTVIISCT CGNVPETWII LKKKAETGDT VLKSIDGAYT IRKAQLKDAG
VYECESKNKV GSQLRSLTLD VQGRENNKDY FSP
```

Source

HEK293 cells

Purity

97%

Biological Activity

Determined by its ability to support the adhesion of human U937 cells. The expected ED_{50} for this effect is 0.8-1.0 µg/ml.

Endotoxin

Endotoxin level is <0.1 ng/µg of protein (<1EU/µg).

Reconstitution

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

Storage, Stability/Shelf Life

-20°C

HEADQUARTERS: BioVendor Laboratorní medicína, a.s.	Karasek 1767/1	621 00 Brno CZECH REPUBLIC	Phone: +420-549-124-185 Fax: +420-549-211-460	E-mail: Web:	info@biovendor.com sales@biovendor.com www.biovendor.com
AUSTRIA: BioVendor GesmbH	Nußdorfer Straße 20/10	1090 Vienna AUSTRIA	Phone: +43-1-89090-25 Fax: +43-1-89090-2515	E-mail:	infoAustria@biovendor.com
GERMANY, SWITZERLAND: BioVendor GmbH	Otto-Hahn-Straße 16	34123 Kassel GERMANY	Phone: +49-6221-433-9100 Fax: +49-6221-433-9111	E-mail:	infoEU@biovendor.com
USA, CANADA AND MEXICO: BioVendor LLC	128 Bingham Rd. Suite 1300	Asheville, NC 28806 USA	Phone: +1-828-575-9250 +1-800-404-7807 Fax: +1-828-575-9251	E-mail:	infoUSA@biovendor.com