Proteins



Product Data Sheet

CD204/MSR1 Protein, Human (HEK293, His)

Cat. No.: HY-P76781

Synonyms: Macrophage scavenger receptor types I and II; SCARA1

Species: Human HEK293 Source:

NP_619729.1 (K77-L451) Accession:

Gene ID: 4481 55-75 kDa Molecular Weight:

PROPERTIES

AA Seq	uence
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KWETKNCSVS STNANDITQS LTGKGNDSEE EMRFQEVFME HMSNMEKRIQ HILDMEANLM DTEHFQNFSM TTDQRFNDIL LQLSTLFSSV QGHGNAIDEI SKSLISLNTT LLDLQLNIEN ERVYNVSAEI LNGKIQENTF KQQEEISKLE $\mathsf{MAMKEEQVHL}$ EQEIKGEVKV LNNITNDLRL KDWEHSQTLR NITLIQGPPG DRGAIGFPGS PPGEKGDRGP TGESGPRGFP GPIGPPGLKG RGLPGYAGRP GNSGPKGQKG EKGSGNTLTP FTKVRLVGGS GPHEGRVEIL VCRSLGYPGV HSGQWGTICD DRWEVRVGQV QAVHKAAHFG QGTGPIWLNE VFCFGRESSI EECKIRQWGT

RACSHSEDAG VTCTL

Biological Activity

Data is not available.

Appearance

Lyophilized powder.

Formulation

Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.

Endotoxin Level

<1 EU/µg, determined by LAL method.

Reconsititution

It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH₂O.

Storage & Stability

Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

Shipping

Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

The CD204/MSR1 protein, encoded by this gene, is a class A macrophage scavenger receptor that comprises three different

isoforms (type 1, type 2, and type 3) resulting from alternative splicing. These trimeric integral membrane glycoproteins are mainly expressed in macrophages and play crucial roles in various macrophage-associated physiological and pathological processes, such as atherosclerosis, Alzheimer's disease, and host defense. Both type 1 and type 2 isoforms function as receptors capable of internalizing modified low-density lipoproteins (LDLs). In contrast, the type 3 isoform, despite having the domain responsible for mediating endocytosis, is unable to internalize modified LDLs due to altered intracellular processing and retention within the endoplasmic reticulum. Interestingly, when co-expressed, the type 3 isoform can inhibit the function of type 1 and type 2 isoforms, indicating a dominant negative effect and suggesting a mechanism for regulating scavenger receptor activity in macrophages. Furthermore, this protein exhibits broad expression in various tissues, including lung and gall bladder, as well as 19 other tissues.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA

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