

PRODUCT INFORMATION



CD44 Extracellular Domain (human, recombinant)

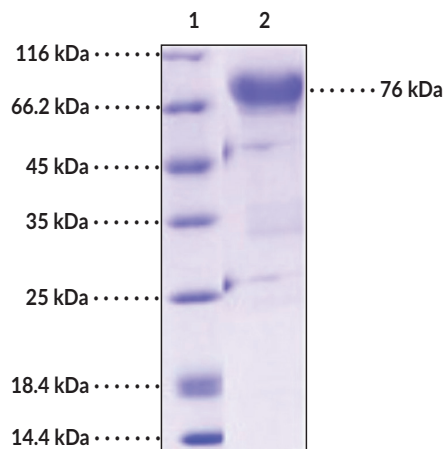
Item No. 32016

Overview and Properties

Synonyms: CDw44, Extracellular Matrix Receptor III, Heparin Sulfate Proteoglycan, HUTCH-I, Hyaluronate Receptor, PGP-1
Source: Recombinant C-terminal human IgG1 Fc-tagged CD44 expressed in HEK293 cells
Amino Acids: 21-220
Molecular Weight: 49.1 kDa
Storage: -80°C (as supplied)
Stability: ≥1 year
Purity: ≥90% estimated by SDS-PAGE
Supplied in: Lyophilized from sterile PBS, pH 7.4
Endotoxin Testing: <1.0 EU/μg, determined by the LAL endotoxin assay

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Image



Lane 1: MW Markers

Lane 2: CD44 N-terminal Domain

SDS-PAGE Analysis of CD44 N-terminal Domain.

This protein has a calculated molecular weight of 49.1 kDa. It has an apparent molecular weight of approximately 76 kDa by SDS-PAGE under reducing conditions.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

CD44 is a type I transmembrane glycoprotein and cell adhesion molecule belonging to the cartilage link protein family with roles in cell-cell and cell-matrix interactions, signal transduction, and cell migration.¹⁻³ It is comprised of an N-terminal extracellular globular domain with a link domain that binds to the extracellular matrix component hyaluronan (HA) and other glycosaminoglycans, a membrane-proximal stem structure, a transmembrane domain, and a cytoplasmic domain that facilitates interactions with cytoskeleton-associated proteins.^{1,4} The stem structure of CD44 can be modified *via* inclusion of variant exons between amino acid residues 222 and 223, resulting in several variant (CD44v) isoforms with the shortest and most prevalent isoform, known as the standard isoform (CD44s) or hematopoietic isoform (CD44H), having no exon insertions at this position.^{1,5,6} CD44 is expressed in a variety of cell types, including endothelial and epithelial cells, fibroblasts, and leukocytes.² Binding of CD44 to HA is induced in T cells and monocytes upon antigen recognition and activation by inflammatory stimuli, respectively.⁷ The interaction between CD44 and HA mediates T cell rolling and recruitment of leukocytes to sites of inflammation. Several CD44 isoforms are expressed in tumor cells, including CD44v6, the overexpression of which is associated with tumor differentiation and lymph node metastasis in patients with non-small cell lung cancer (NSCLC).^{8,9} Cayman's CD44 N-terminal Domain (human, recombinant) protein is a disulfide-linked homodimer. The reduced monomer, comprised of CD44 (amino acids 21-220) fused to human IgG1 Fc at its C-terminus, consists of 441 amino acids, has a calculated molecular weight of 49.1 kDa, and a predicted N-terminus of Gln21 after signal peptide cleavage. The monomer migrates at approximately 76 kDa by SDS-PAGE under reducing conditions.

References

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