

**Anti-CD44 (RABBIT) Antibody**  
**CD44 Antibody**  
**Catalog # ASR5567**

**Specification**

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**Anti-CD44 (RABBIT) Antibody - Product Information**

Host	Rabbit
Conjugate	Unconjugated
Target Species	Human
Reactivity	Human
Clonality	Polyclonal
Application	WB, E, I, LCI
Application Note	Anti-CD44 Antibody has been tested for use in ELISA and Western Blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 81.5 kDa in Western Blots of specific cell lysates and tissues.
Physical State	Liquid (sterile filtered)
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Immunogen	Anti-CD44 antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide near the c-terminal region of human CD44.
Preservative	0.01% (w/v) Sodium Azide

**Anti-CD44 (RABBIT) Antibody - Additional Information**

**Gene ID** 960

**Other Names**  
960

**Purity**

Anti-CD44 Antibody is directed against human CD44 protein. CD44 Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. A BLAST analysis used to suggest reactivity with this protein from human based on 100% homology for the immunizing sequence.

**Storage Condition**

Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

**Precautions Note**

This product is for research use only and is not intended for therapeutic or diagnostic applications.

## Anti-CD44 (RABBIT) Antibody - Protein Information

**Name** CD44

**Synonyms** LHR, MDU2, MDU3, MIC4

### Function

Cell-surface receptor that plays a role in cell-cell interactions, cell adhesion and migration, helping them to sense and respond to changes in the tissue microenvironment (PubMed:<a href="http://www.uniprot.org/citations/16541107" target="\_blank">16541107</a>, PubMed:<a href="http://www.uniprot.org/citations/19703720" target="\_blank">19703720</a>, PubMed:<a href="http://www.uniprot.org/citations/22726066" target="\_blank">22726066</a>). Participates thereby in a wide variety of cellular functions including the activation, recirculation and homing of T-lymphocytes, hematopoiesis, inflammation and response to bacterial infection (PubMed:<a href="http://www.uniprot.org/citations/7528188" target="\_blank">7528188</a>). Engages, through its ectodomain, extracellular matrix components such as hyaluronan/HA, collagen, growth factors, cytokines or proteases and serves as a platform for signal transduction by assembling, via its cytoplasmic domain, protein complexes containing receptor kinases and membrane proteases (PubMed:<a href="http://www.uniprot.org/citations/18757307" target="\_blank">18757307</a>, PubMed:<a href="http://www.uniprot.org/citations/23589287" target="\_blank">23589287</a>). Such effectors include PKN2, the RhoGTPases RAC1 and RHOA, Rho-kinases and phospholipase C that coordinate signaling pathways promoting calcium mobilization and actin-mediated cytoskeleton reorganization essential for cell migration and adhesion (PubMed:<a href="http://www.uniprot.org/citations/15123640" target="\_blank">15123640</a>).

### Cellular Location

Cell membrane; Single-pass type I membrane protein. Cell projection, microvillus {ECO:0000250|UniProtKB:P15379}. Secreted Note=Colocalizes with actin in membrane protrusions at wounding edges Co-localizes with RDX, EZR and MSN in microvilli. Localizes to cholesterol-rich membrane-bound lipid raft domains {ECO:0000250|UniProtKB:P15379, ECO:0000269|PubMed:23589287}

### Tissue Location

Detected in fibroblasts and urine (at protein level) (PubMed:25326458, PubMed:36213313, PubMed:37453717). Detected in placenta (at protein level) (PubMed:32337544). Isoform 10 (epithelial isoform) is expressed by cells of epithelium and highly expressed by carcinomas. Expression is repressed in neuroblastoma cells

## Anti-CD44 (RABBIT) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Anti-CD44 (RABBIT) Antibody - Images

## Anti-CD44 (RABBIT) Antibody - Background

CD44 was designed, produced, and validated as part of the Joy Cappel Young Investigator Award

(JCYIA). CD44 is a receptor for hyaluronic acid (HA), an integral component of the extracellular matrix. CD44 mediates cell-cell and cell-matrix interactions through its affinity for HA, and can also interact with ligands such as osteopontin, collagens, and matrix metalloproteinases (MMPs). The multiple protein isoforms are encoded by a single gene by alternative splicing and are further modified by a range of post-translational modifications. CD44 function is controlled by these posttranslational modifications. The major physiological role of CD44 is to maintain organ and tissue structure via cell-cell and cell-matrix adhesion, but certain variant isoforms can also mediate lymphocyte activation and homing, and the presentation of chemical factors and hormones. CD44 participates in a wide variety of cellular functions including lymphocyte activation, recirculation and homing, hematopoiesis, and tumor metastasis. CD44 is a multi-structural and multi-functional cell surface molecule involved in cell proliferation, cell differentiation, cell migration, angiogenesis, presentation of cytokines, chemokines, and growth factors to the corresponding receptors, and docking of proteases at the cell membrane, as well as in signaling for cell survival. All these biological properties are essential to the physiological activities of normal cells, but they are also associated with the pathologic activities of cancer cells. CD44, particularly its variants, may be useful as a diagnostic or prognostic marker of malignancy and, in at least some human cancers, it may be a potential target for cancer therapy.