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# CD44 (ANT0039R) Rabbit mAb

CatalogNo: ANT8279 Recombinant R

Formulation: PBS,50%glycerol,0.05%Proclin 300,0.05%BSA

Quantity: 100 ug/vial

**Host Species Applications** Reactivity

Rabbit WB,IHC,IF,IP,ELISA Human, Mouse, Rat,

MW Isotype

• 81kD (Calculated) • IgG,Kappa

81kD (Observed)

## **Recommended Dilution Ratios**

IHC 1:20000-1:50000 WB 1:1000-1:5000 IF 1:200-1:1000 ELISA 1:5000-1:20000

IP 1:50-1:200

# Storage

Storage\* -15°C to -25°C/1 year(Do not lower than -25°C)

#### **Basic Information**

Monoclonal Clonality

**Clone Number** ANT0039R

## Immunogen Information Specificity

Endogenous

## Target Information

Gene name CD44 LHR MDU2 MDU3 MIC4

Protein Name CD44

Organism	Gene ID	UniProt ID
Human	<u>960</u> ;	<u>P16070;</u>
Mouse	<u>12505</u> ;	<u>P15379</u> ;
Rat		<u>P26051</u> ;

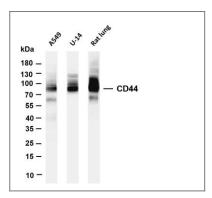
Cellular Localization Membrane

**Tissue specificity** Isoform 10 (epithelial isoform) is expressed by cells of epithelium and highly expressed by carcinomas. Expression is repressed in neuroblastoma cells.

#### **Function**

Alternative products:Additional isoforms seem to exist. Additional isoforms are produced by alternative splicing of 10 out of 19 exons within the extracellular domain. Additional diversity is generated through the utilization of internal splice donor and acceptor sites within 2 of the exons. A variation in the cytoplasmic domain was shown to result from the alternative splicing of 2 exons. Isoform CD44 is expected to be expressed in normal cells. Splice variants have been found in many tumor cell lines. Exons 5, 6, 7, 8, 9, 10, 11, 13, 14 and 19 are alternatively spliced. Experimental confirmation may be lacking for some isoforms,Function:Receptor for hyaluronic acid (HA). Mediates cell-cell and cell-matrix interactions through its affinity for HA, and possibly also through its affinity for other ligands such as osteopontin, collagens, and matrix metalloproteinases (MMPs). Adhesion with HA plays an important role in cell migration, tumor growth and progression. Also involved in lymphocyte activation, recirculation and homing, and in hematopoiesis. Altered expression or dysfunction causes numerous pathogenic phenotypes. Great protein heterogeneity due

to numerous alternative splicing and post-translational modification events., online information:Blood group antigen gene mutation database, online information:CD44 entry,polymorphism:CD44 is responsible for the Indian blood group system. The molecular basis of the In(A)=In1/In(B)=In2 blood group antigens is a single variation in position 46; In(B), the most frequent allele, has Arg-46., ANTM: N-glycosylated., PTM: O-glycosylated; contains more-or-less-sulfated chondroitin sulfate glycans, whose number may affect the accessibility of specific proteinases to their cleavage site(s).,PTM:Phosphorylated; activation of PKC results in the dephosphorylation of Ser-706 (constitutive phosphorylation site), and the phosphorylation of Ser-672., PTM: Proteolytically cleaved in the extracellular matrix by specific proteinases (possibly MMPs) in several cell lines and tumors., similarity: Contains 1 Link domain., subunit: Interacts with HA, as well as other glycosaminoglycans, collagen, laminin, and fibronectin via its N-terminal segment. Interacts with ANK, the ERM proteins (VIL2, RDX and MSN), and NF2 via its C-terminal segment.,tissue specificity:An epithelial isoform (CD44E) is expressed by cells of epithelium and highly expressed by carcinomas. An hematopoietic isoform (CD44H) is expressed by cells of mesodermal origin. Expression is repressed in neuroblastoma cells.,

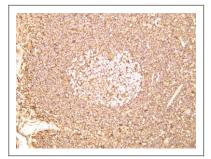


# Validation

#### **Data**

Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-CD44 (ANT0039R) antibody. The HRPconjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: A549 Lane 2: U-14 Lane 3: Rat lung Predicted band size:

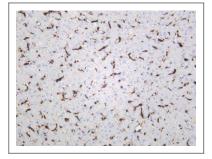
81kDa Observed band size: 81kDa



Human tonsil was stained with anti-CD44 (ANT0039R) rabbit antibody



Rat liver was stained with anti-CD44 (ANT0039R) rabbit antibody



Human liver was stained with anti-CD44 (ANT0039R) rabbit antibody



Mouse liver was stained with anti-CD44 (ANT0039R) rabbit antibody

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