

CD44 Antibody (clone IM7)
Rat Monoclonal Antibody
Catalog # ALS14134

Specification

CD44 Antibody (clone IM7) - Product Information

Application	IHC
Primary Accession	P16070
Reactivity	Human, Mouse, Horse, Dog, Cat
Host	Rat
Clonality	Monoclonal
Calculated MW	82kDa KDa

CD44 Antibody (clone IM7) - Additional Information

Gene ID 960

Other Names

CD44 antigen, CDw44, Epican, Extracellular matrix receptor III, ECMR-III, GP90 lymphocyte homing/adhesion receptor, HUTCH-I, Heparan sulfate proteoglycan, Hermes antigen, Hyaluronate receptor, Phagocytic glycoprotein 1, PGP-1, Phagocytic glycoprotein I, PGP-I, CD44, CD44, LHR, MDU2, MDU3, MIC4

Target/Specificity

The rat monoclonal antibody IM7 reacts with CD44 antigen (Phagocyte glycoprotein 1), an 80-95 kD transmembrane glycoprotein (hyaladherin family) present on the most of cells and tissues (leukocytes, endothelial cells, mesenchymal cells, etc.); it is ...

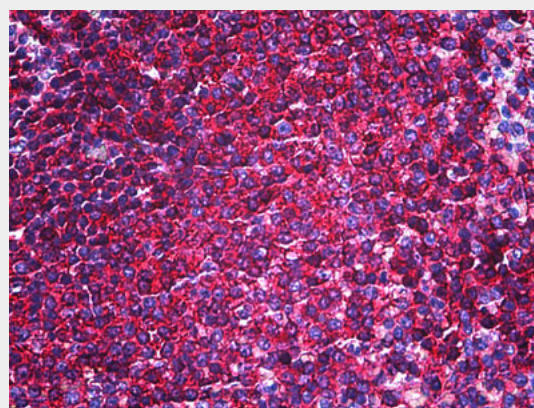
Reconstitution & Storage

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles.

Precautions

CD44 Antibody (clone IM7) is for research use only and not for use in diagnostic or therapeutic procedures.

CD44 Antibody (clone IM7) - Protein Information



Anti-CD44 antibody IHC of human spleen.

CD44 Antibody (clone IM7) - Background

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. In cancer cells, may play an important role in invadopodia formation. 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.

CD44 Antibody (clone IM7) - References

Stamenkovic I., et al. Cell 56:1057-1062(1989).
Harn H.-J., et al. Biochem. Biophys. Res. Commun. 178:1127-1134(1991).
Stamenkovic I., et al. EMBO J. 10:343-348(1991).
Dougherty G.J., et al. J. Exp. Med. 174:1-5(1991).
Kugelman L.C., et al. J. Invest. Dermatol. 99:886-891(1992).

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:16541107, PubMed:19703720, PubMed:22726066). 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:7528188). 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:18757307, PubMed:23589287). 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:15123640).

Cellular Location

Cell membrane; Single-pass type I membrane protein. Cell projection, microvillus {ECO:0000250|UniProtKB:P15379}. 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

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

CD44 Antibody (clone IM7) - 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](#)