

CD44 Antibody (clone IM7, PE, Cy7)
Rat Monoclonal Antibody
Catalog # ALS16696**Specification**

CD44 Antibody (clone IM7, PE, Cy7) - Product Information

Application	IHC-P, FC
Primary Accession	P16070
Other Accession	960
Reactivity	Human, Mouse
Host	Rat
Clonality	Monoclonal
Isotype	IgG2b,k
Calculated MW	81538
Dilution	IHC-P~~N/A FC~~1:10~50

CD44 Antibody (clone IM7, PE, Cy7) - Additional Information**Gene ID** 960**Other Names**

CD44, CDW44, CD44 antigen, Cell surface glycoprotein CD44, CSPG8, ECMR-III, Epican, HUTCH-I, LHR, MDU2, MC56, MIC4, Hermes antigen, Hyaluronate receptor, Phagocytic glycoprotein 1, PGP-1, PGP-I, Pgp1, Phagocytic glycoprotein I, MDU3, CD44R, HCELL, He ...

Reconstitution & Storage

Aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer. Store at +4°C. Do not freeze. Product is photosensitive and should be protected from light.

Precautions

CD44 Antibody (clone IM7, PE, Cy7) is for research use only and not for use in diagnostic or therapeutic procedures.

CD44 Antibody (clone IM7, PE, Cy7) - 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: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). Upon interaction with LGALS9 ligand, activates downstream signaling components including LCK, ERK and MAPK to promotes NK cell activation (PubMed:37006235).

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

CD44 Antibody (clone IM7, PE, Cy7) - Protocols

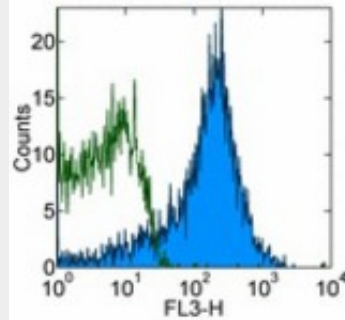
Provided below are standard protocols that you may find useful for product applications.

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

CD44 Antibody (clone IM7, PE, Cy7) - Images



Anti-CD44 antibody IHC staining of human spleen.



Staining of C57Bl/6 splenocytes with 0.06 ug of PE-Cy7 Rat IgG2b isotype control (open...

CD44 Antibody (clone IM7, PE, Cy7) - 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, PE, Cy7) - 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).