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# CD44 / HCAM Std. Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone SPM521 ]
Catalog # AH12741

## Product Information

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| **Application** | WB, IHC, IF, FC |
| **Primary Accession** | P16070 |
| **Other Accession** | 960, 502328 |
| **Reactivity** | Human, Baboon |
| **Host** | Mouse |
| **Clonality** | Monoclonal |
| **Isotype** | Mouse / IgG2a, kappa |
| **Clone Names** | SPM521 |
| **Calculated MW** | 81538 |

## Additional Information

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| **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 |
| **Application Note** | WB~~1:1000 IHC~~1:100~500 IF~~1:50~200 FC~~1:10~50 |
| **Storage** | Store at 2 to 8°C.Antibody is stable for 24 months. |
| **Precautions** | CD44 / HCAM Std. Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **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 |

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| | 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 |

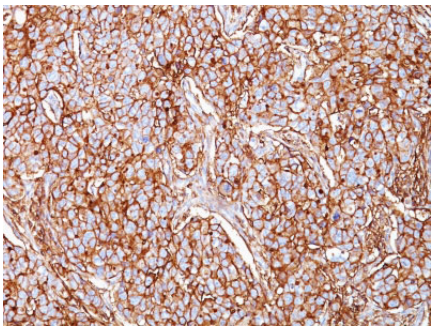
## Background

Recognizes a cell surface glycoprotein of 80-95kDa (CD44) on lymphocytes, monocytes, and granulocytes. Its epitope is resistant to digestion by trypsin and chymotrypsin. The CD44 family of glycoproteins exists in a number of variant isoforms, the most common being the standard 85-95kDa or hematopoietic variant (CD44s). Higher molecular weight isoforms are described in epithelial cells (CD44v), which are believed to function in intercellular adhesion and stromal binding. CD44 immunostaining is commonly used for the discrimination of urothelial transitional cell carcinoma in-situ from non-neoplastic changes in the urothelium.

## References

Schlossman SF, et. al. Leucocyte Typing V, p1713-1719, Oxford Univ. Press, 1995

## Images



Formalin-fixed, paraffin-embedded human Breast Carcinoma stained with CD44 Monoclonal Antibody (SPM521)

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.