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# CD44 Antibody (C-term) [Knockout Validated]

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20764c

## Product Information

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|---|---|
| **Application** | WB, E |
| **Primary Accession** | P16070 |
| **Reactivity** | Human |
| **Predicted** | Mouse, Rat, Bovine, Canine, Rabbit |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB50727 |
| **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 |
| **Target/Specificity** | This CD44 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 688-722 amino acids from the C-terminal region of human CD44. |
| **Dilution** | WB~~1:1000 E~~Use at an assay dependent concentration. |
| **Format** | Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification. |
| **Storage** | Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| **Precautions** | CD44 Antibody (C-term) [Knockout Validated] 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 |

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| **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 |

## Background

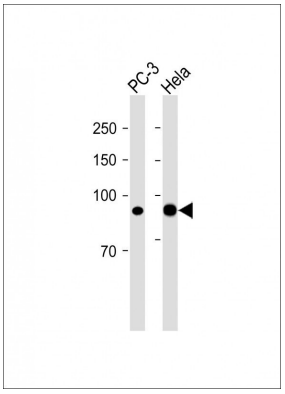
Receptor for hyaluronic acid (HA). Mediates cell-cell and cell-matrix interactions through its affinity for HA, and possibly also through its affinity for other ligands such as osteopontin, collagens, and matrix metalloproteinases (MMPs). Adhesion with HA plays an important role in cell migration, tumor 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.

## References

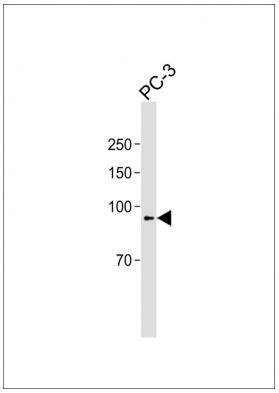

Stamenkovic I.,et al.Cell 56:1057-1062(1989).
Harn H.-J.,et al.Biochem. Biophys. Res. Commun. 178:1127-1134(1991).
Stamenkovic I.,et al.EMBO J. 10:343-348(1991).
Dougherty G.J.,et al.J. Exp. Med. 174:1-5(1991).
Kugelman L.C.,et al.J. Invest. Dermatol. 99:886-891(1992).

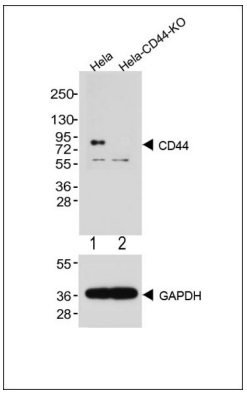

## Images

All lanes: Anti-CD44 Antibody (C-term) at 1:1000 dilution Lane 1: PC-3 whole cell lysate Lane 2: Hela whole cell lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615)

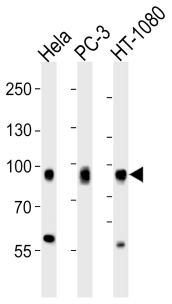



at 1/15000 dilution. Observed band size: 90 KDa Blocking/Dilution buffer: 5% NFDM/TBST.




All lanes : Anti-CD44 Antibody at 1:2000 dilution (upper) Lane 1: Hela Lane 2: Hela-CD44-Knock out Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 82 kDa Blocking/Dilution buffer: 5% NFDM/TBST.




Western blot analysis of lysates from Hela, PC-3, HT-1080 cell line (from left to right), using CD44 Antibody (C-term)(Cat. #AP20764c). AP20764c was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysates at 35ug per lane.

## Citations

- Role of syndecan-1 and exogenous heparin in hepatoma sphere formation
- All-trans retinoic acids induce differentiation and sensitize a radioresistant breast cancer cells to chemotherapy.
- The Antimetastatic Effect and Underlying Mechanisms of Thioredoxin Reductase Inhibitor Ethaselen.
- CBX7 regulates stem cell-like properties of gastric cancer cells via p16 and AKT-NF-κB-miR-21 pathways.
- Role of thioredoxin reductase 1 in dysplastic transformation of human breast epithelial cells triggered by chronic oxidative stress.

- The Role of CD44 in Glucose Metabolism in Prostatic Small Cell Neuroendocrine Carcinoma.

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