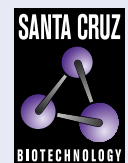


CD10 (F-4): sc-46656



The Power to Question

BACKGROUND

CD10, also called the common acute lymphoblastic leukemia antigen (CALLA) and neutral endopeptidase (NEP), is a type II integral membrane glycoprotein. CD10 acts as a zinc metalloprotease that cleaves a variety of biologically active peptides including angiotensins I and II. CD10 is expressed on early B and T lymphoid precursors, B blasts, some granulocytes, bone marrow stromal cells, and certain epithelial cells including some tumor cell lines. CD10 is used as a marker of common acute lymphocytic leukemias and some lymphomas.

CHROMOSOMAL LOCATION

Genetic locus: MME (human) mapping to 3q25.2; Mme (mouse) mapping to 3 E1.

SOURCE

CD10 (F-4) is a mouse monoclonal antibody raised against amino acids 230-550 of CD10 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD10 (F-4) is available conjugated to agarose (sc-46656 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-46656 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-46656 PE), fluorescein (sc-46656 FITC), Alexa Fluor® 488 (sc-46656 AF488), Alexa Fluor® 546 (sc-46656 AF546), Alexa Fluor® 594 (sc-46656 AF594) or Alexa Fluor® 647 (sc-46656 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-46656 AF680) or Alexa Fluor® 790 (sc-46656 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

CD10 (F-4) is recommended for detection of CD10 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CD10 siRNA (h): sc-29959, CD10 siRNA (m): sc-37230, CD10 shRNA Plasmid (h): sc-29959-SH, CD10 shRNA Plasmid (m): sc-37230-SH, CD10 shRNA (h) Lentiviral Particles: sc-29959-V and CD10 shRNA (m) Lentiviral Particles: sc-37230-V.

Molecular Weight of CD10: 100 kDa.

Positive Controls: Ramos cell lysate: sc-2216, Raji whole cell lysate: sc-364236 or human kidney extract: sc-363764.

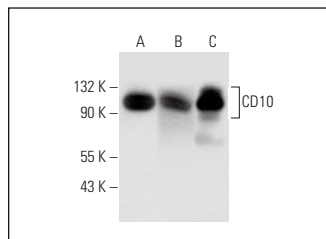
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

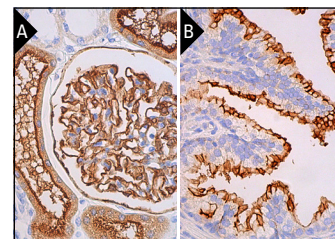
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



CD10 (F-4): sc-46656. Western blot analysis of CD10 expression in Ramos (A) and Raji (B) whole cell lysates and human kidney tissue extract (C).



CD10 (F-4): sc-46656. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing membrane and cytoplasmic staining of cells in glomeruli and apical membrane and cytoplasmic staining of cells in tubules (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human prostate tissue showing membrane and cytoplasmic staining of glandular cells (B).

SELECT PRODUCT CITATIONS

1. Conde-Vancells, J., et al. 2010. Candidate biomarkers in exosome-like vesicles purified from rat and mouse urine samples. *Proteomics Clin. Appl.* 4: 416-425.
2. Zhang, D., et al. 2011. Genetic and functional effects of membrane metalloendopeptidase on diabetic nephropathy development. *Am. J. Nephrol.* 34: 483-490.
3. Vom Berg, J., et al. 2012. Inhibition of IL-12/IL-23 signaling reduces Alzheimer's disease-like pathology and cognitive decline. *Nat. Med.* 18: 1812-1819.
4. Zhong, J., et al. 2014. p300 acetyltransferase regulates androgen receptor degradation and PTEN-deficient prostate tumorigenesis. *Cancer Res.* 74: 1870-1880.
5. Kim, T.H., et al. 2015. Expression of p27 and Jun activation domain-binding protein 1 in endometriosis. *Arch. Gynecol. Obstet.* 292: 377-381.
6. Matsuzaki, S., et al. 2016. Soft matrices inhibit cell proliferation and inactivate the fibrotic phenotype of deep endometriotic stromal cells *in vitro*. *Hum. Reprod.* 31: 541-553.
7. Harach, T., et al. 2017. Administrations of human adult ischemia-tolerant mesenchymal stem cells and factors reduce amyloid β pathology in a mouse model of Alzheimer's disease. *Neurobiol. Aging* 51: 83-96.
8. Beckelman, B.C., et al. 2019. Genetic reduction of eEF2 kinase alleviates pathophysiology in Alzheimer's disease model mice. *J. Clin. Invest.* 129: 820-833.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.