

CD10 (H-321): sc-9149

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.

CHROMSOMAL LOCATION

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

SOURCE

CD10 (H-321) is a rabbit polyclonal antibody raised against amino acids 230-550 of CD10 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as fluorescein conjugate for immunofluorescence or flow cytometry, sc-9149 FITC, 200 µg/ml.

Available as Alexa Fluor[®] 405 (sc-9149 AF405), Alexa Fluor[®] 488 (sc-9149 AF488) or Alexa Fluor[®] 647 (sc-9149 AF647) conjugates for flow cytometry or immunofluorescence; 100 µg/2 ml.

Alexa Fluor[®] is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

CD10 (H-321) is recommended for detection of CD10 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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), flow cytometry (1 µg per 1 x 10⁶ cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CD10 (H-321) is also recommended for detection of CD10 in additional species, including equine, canine, bovine and porcine.

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 LNCaP cell lysate: sc-2231.

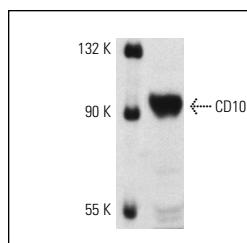
STORAGE

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

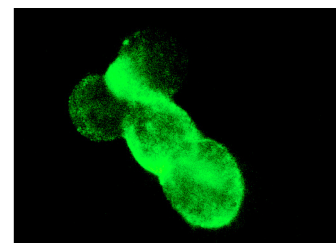
RESEARCH USE

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

DATA



CD10 (H-321): sc-9149. Western blot analysis of CD10 expression in LNCaP whole cell lysate.



CD10 (H-321): sc-9149. Immunofluorescence staining of methanol-fixed LNCaP cells showing membrane staining.

SELECT PRODUCT CITATIONS

- Schling, P., et al. 2002. Human adipose tissue cells keep tight control on the angiotensin II levels in their vicinity. *J. Biol. Chem.* 277: 48066-48075.
- Knecht, M., et al. 2002. Increased expression of renal neutral endopeptidase in severe heart failure. *Life Sci.* 71: 2701-2712.
- Cirrito, J.R., et al. 2005. Synaptic activity regulates interstitial fluid amyloid-β levels *in vivo*. *Neuron* 48: 913-922.
- Schmid, C., et al. 2005. Ascorbic acid decreases neutral endopeptidase activity in cultured osteoblastic cells. *Regul. Pept.* 130: 57-66.
- Sansoè, G., et al. 2006. Overexpression of kidney neutral endopeptidase (EC 3.4.24.11) and renal function in experimental cirrhosis. *Am. J. Physiol. Renal Physiol.* 290: F1337-F1343.
- Hébert, S.S., et al. 2006. Regulated intramembrane proteolysis of amyloid precursor protein and regulation of expression of putative target genes. *EMBO Rep.* 7: 739-745.
- Shimizu, E., et al. 2008. IL-4-induced selective clearance of oligomeric β-amyloid peptide(1-42) by rat primary type 2 microglia. *J. Immunol.* 181: 6503-6513.
- Duclot, F., et al. 2010. Mice knock out for the histone acetyltransferase p300/CREB binding protein-associated factor develop a resistance to amyloid toxicity. *Neuroscience* 167: 850-863.
- Pinto, F.M., et al. 2010. Autocrine regulation of human sperm motility by tachykinins. *Reprod. Biol. Endocrinol.* 8: 104.
- Tang, R., et al. 2012. High glucose mediates endothelial-to-chondrocyte transition in human aortic endothelial cells. *Cardiovasc. Diabetol.* 11: 113.



Try **CD10 (F-4): sc-46656** or **CD10 (2A1H5E1): sc-65990**, our highly recommended monoclonal alternatives to CD10 (H-321). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **CD10 (F-4): sc-46656**.