

CD39L4 (C-6): sc-377172

BACKGROUND

CD39, also known as ectonucleoside triphosphate diphosphohydrolase 1 (ENTP1), is an integral membrane glycoprotein that acts as an extracellular nucleotide-hydrolyzing enzyme. Characteristically, CD39 and other members of the ecto-ATPase family contain apyrase-conserved regions and function to mediate nucleotide catabolism. CD39L4, also known as ENTPD5 (ectonucleoside triphosphate diphosphohydrolase 5), is a 428 amino acid protein that is similar to CD39 and localizes to the lumen of the endoplasmic reticulum (ER). Highly expressed in colon, testis, kidney, liver and prostate, CD39L4 is thought to promote reglycosylation reactions that are involved in the folding of glycoproteins and in quality control events in the ER. Like other members of the ecto-ATPase family, CD39L4 contains four apyrase-conserved regions and is catalytically activated by calcium and magnesium. Overexpression of CD39L4 is implicated in the development of breast, testicular and prostate cancer, suggesting that CD39L4 may be a proto-oncogene involved in carcinogenesis.

REFERENCES

- Recio, J.A., et al. 2000. Both normal and transforming PCPH proteins have guanosine diphosphatase activity but only the oncoprotein cooperates with Ras in activating extracellular signal-regulated kinase ERK1. *Cancer Res.* 60: 1720-1728.
- Páez, J.G., et al. 2001. Identity between the PCPH proto-oncogene and the CD39L4 (ENTPD5) ectonucleoside triphosphate diphosphohydrolase gene. *Int. J. Oncol.* 19: 1249-1254.

CHROMOSOMAL LOCATION

Genetic locus: ENTPD5 (human) mapping to 14q24.3; Entpd5 (mouse) mapping to 12 D1.

SOURCE

CD39L4 (C-6) is a mouse monoclonal antibody raised against amino acids 251-329 mapping within an internal region of CD39L4 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD39L4 (C-6) is available conjugated to agarose (sc-377172 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377172 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377172 PE), fluorescein (sc-377172 FITC), Alexa Fluor® 488 (sc-377172 AF488), Alexa Fluor® 546 (sc-377172 AF546), Alexa Fluor® 594 (sc-377172 AF594) or Alexa Fluor® 647 (sc-377172 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377172 AF680) or Alexa Fluor® 790 (sc-377172 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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STORAGE

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

APPLICATIONS

CD39L4 (C-6) is recommended for detection of CD39L4 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 CD39L4 siRNA (h): sc-92204, CD39L4 siRNA (m): sc-142200, CD39L4 shRNA Plasmid (h): sc-92204-SH, CD39L4 shRNA Plasmid (m): sc-142200-SH, CD39L4 shRNA (h) Lentiviral Particles: sc-92204-V and CD39L4 shRNA (m) Lentiviral Particles: sc-142200-V.

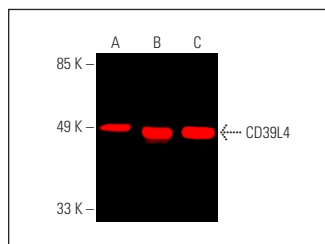
Molecular Weight of CD39L4: 49 kDa.

Positive Controls: human liver extract: sc-363766, mouse liver extract: sc-2256 or rat liver extract: sc-2395.

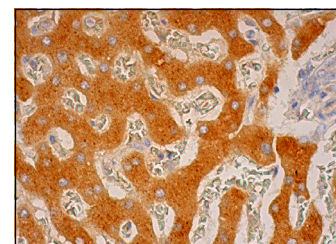
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



CD39L4 (C-6): sc-377172. Near-Infrared western blot analysis of CD39L4 expression in human liver (A), mouse liver (B) and rat liver (C) tissue extracts. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 790: sc-516181.



CD39L4 (C-6): sc-377172. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes.

SELECT PRODUCT CITATIONS

- Durst, M.A., et al. 2019. Identifying small molecule probes of ENTPD5 through high throughput screening. *PLoS ONE* 14: e0210305.

RESEARCH USE

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