

RP105 (RP/14): sc-13592

BACKGROUND

RP105 is a mouse B cell surface molecule that transmits a growth-promoting signal and is implicated in the life/death decision of B cells. RP105 has tandem repeats of a leucine-rich motif in its extracellular domain that are presumed to be involved in protein-protein interactions. The amino acid sequence of human RP105 is highly homologous to that of mouse RP105; human RP105 shares 74% identity with the mouse protein, as well as the leucine-rich motif. Surface expression of RP105 is enhanced in the presence of MD1, although this expression is restricted to CD19-positive B cells. RP105 demonstrates predominant expression on mature B cells in mantle zones; very little expression is observed in germinal centers.

REFERENCES

1. Gay, N.J., et al. 1991. *Drosophila* Toll and IL-1 receptor. *Nature* 351: 355-356.
2. Miura, Y., et al. 1996. Molecular cloning of a human RP105 homologue and chromosomal localization of the mouse and human RP105 genes (Ly64 and LY64). *Genomics* 38: 299-304.
3. Rock, F.L., et al. 1998. A family of human receptors structurally related to *Drosophila* Toll. *Proc. Natl. Acad. Sci. USA* 95: 588-593.
4. Miyake, K., et al. 1998. Mouse MD-1, a molecule that is physically associated with RP105 and positively regulates its expression. *J. Immunol.* 161: 1348-1353.
5. Miura, Y., et al. 1998. RP105 is associated with MD-1 and transmits an activation signal in human B cells. *Blood* 92: 2815-2822.
6. Brightbill, H.D., et al. 1999. Host defense mechanisms triggered by microbial lipoproteins through Toll-like receptors. *Science* 285: 732-736.
7. Medzhitov, R., et al. 2000. A human homologue of the *Drosophila* Toll protein signals activation of adaptive immunity. *Nature* 388: 394-397.

CHROMOSOMAL LOCATION

Genetic locus: Cd180 (mouse) mapping to 13 D1.

SOURCE

RP105 (RP/14) is a rat monoclonal antibody raised against transfected cells expressing full length RP105 (also known as CD180) of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available azide-free for activation of B-cells in functional studies, sc-13592 L, 200 µg/0.1 ml.

RP105 (RP/14) is available conjugated to agarose (sc-13592 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-13592 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-13592 PE), fluorescein (sc-13592 FITC), Alexa Fluor® 488 (sc-13592 AF488), Alexa Fluor® 546 (sc-13592 AF546), Alexa Fluor® 594 (sc-13592 AF594) or Alexa Fluor® 647 (sc-13592 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-13592 AF680) or Alexa Fluor® 790 (sc-13592 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

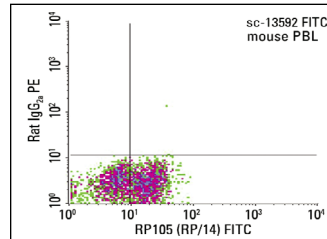
APPLICATIONS

RP105 (RP/14) is recommended for detection of RP105 of mouse origin by 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).

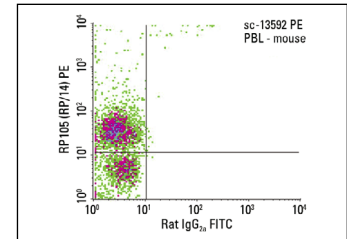
Suitable for use as control antibody for RP105 siRNA (m): sc-40253, RP105 shRNA Plasmid (m): sc-40253-SH and RP105 shRNA (m) Lentiviral Particles: sc-40253-V.

Molecular Weight of RP105: 95-105 kDa.

DATA



RP105 (RP/14) FITC: sc-13592 FITC. FCM analysis of mouse peripheral blood leukocytes. Quadrant markers were set based on the isotype control, normal rat IgG_{2a}-FITC: sc-2831.



RP105 (RP/14) PE: sc-13592 PE. FCM analysis of mouse peripheral blood leukocytes. Quadrant markers were set based on the isotype control, normal rat IgG_{2a}-PE: sc-2872.

SELECT PRODUCT CITATIONS

1. Dissanayake, S., et al. 2004. *Taenia crassiceps* carbohydrates stimulate IL-6 expression in naive murine macrophages via Toll-like receptors (TLRs). *Mol. Immunol.* 41: 391-398.
2. Dissanayake, S., et al. 2007. Induction of interferon-γ by *Taenia crassiceps* glycans and Lewis sugars in naive BALB/c spleen and peritoneal exudate cells. *Mol. Immunol.* 44: 1623-1630.
3. Kunda, P.E., et al. 2014. Lipopolysaccharides and trophic factors regulate the LPS receptor complex in nodose and trigeminal neurons. *Neuroscience* 280: 60-72.
4. Huang, W., et al. 2020. RP105 plays a cardioprotective role in myocardial ischemia reperfusion injury by regulating the Toll-like receptor 2/4 signaling pathways. *Mol. Med. Rep.* 22: 1373-1381.

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.

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