SANTA CRUZ BIOTECHNO

CD37 (M-B372): sc-23924

BACKGROUND

Tetra-spans transmembrane family (TSTF) members (CD9, CD37, CD53, CD63, CD81 and CD82) are cell surface proteins that are characterized by the presence of four hydrophobic, membrane-spanning domains. TSTF members can mediate signal transduction events influencing the regulation of cell development, adhesion, activation, growth and motility. The human CD37 gene maps to chromosome 19p13.3 and encodes a 281 amino acid protein. CD37 is a cell surface glycoprotein that can complex with integrins and other TSTF proteins and may play a role in T cell-B cell interactions. CD37 is strongly expressed on normal and neoplastic mature slg+ B cells and is detected at low levels on resting and activated T cells, neutrophils, granulocytes and monocytes. Transgenic mouse models elicit no changes in development and cellular composition of lymphoid organs where CD37 is lacking.

REFERENCES

1. Classon, B.J., et al. 1989. The primary structure of the human leukocyte antigen CD37, a species homologue of the rat MRC OX-44 antigen. J. Exp. Med. 169: 1497-1502.
2. Okochi, H., et al. 1997. Expression of tetraspans transmembrane family (CD9, CD37, CD53, CD63, CD81 and CD82) in normal and neoplastic human keratinocytes: an association of CD9 with $\alpha 3\beta 1$ integrin. Br. J. Dermatol. 137: 856-863.
3. Maecker, H.T., et al. 1997. The tetraspanin superfamily: molecular facilitators. FASEB J. 11: 428-442.
4. Knobeloch, K.P., et al. 2000. Targeted inactivation of the tetraspanin CD37 impairs T cell-dependent B cell response under suboptimal costimulatory conditions. Mol. Cell. Biol. 20: 5363-5369.
5. Online Mendelian Inheritance in Man, OMIM™. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 227400. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: CD37 (human) mapping to 19p13.33.

SOURCE

CD37 (M-B372) is a mouse monoclonal antibody raised against EBV-transformed B-cell line.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD37 (M-B372) is available conjugated to agarose (sc-23924 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-23924 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-23924 PE), fluorescein (sc-23924 FITC), Alexa Fluor® 488 (sc-23924 AF488), Alexa Fluor® 546 (sc-23924 AF546), Alexa Fluor® 594 (sc-23924 AF594) or Alexa Fluor® 647 (sc-23924 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-23924 AF680) or Alexa Fluor® 790 (sc-23924 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

CD37 (M-B372) is recommended for detection of CD37 of 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) and flow cytometry (1 µg per 1 x 10^6 cells).

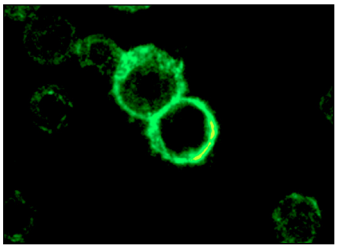
Suitable for use as control antibody for CD37 siRNA (h): sc-42784, CD37 shRNA Plasmid (h): sc-42784-SH and CD37 shRNA (h) Lentiviral Particles: sc-42784-V.

Molecular Weight of CD37: 32 kDa.

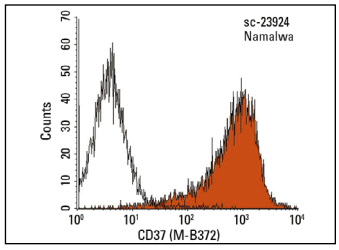
RECOMMENDED SUPPORT REAGENTS

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.

DATA



CD37 (M-B372): sc-23924. Immunofluorescence staining of methanol-fixed NAMALWA cells showing membrane localization.



CD37 (M-B372): sc-23924. Indirect FCM analysis of live Namalwa cells stained with CD37 (M-B372), followed by PE-conjugated goat anti-mouse IgG-PE: sc-3738.

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.

PROTOCOLS

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