SANTA CRUZ BIOTECHNOLOGY, INC.

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 19p13.33 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. Trans-genic mouse models elicit no changes in development and cellular composition of lymphoid organs where CD37 is lacking.

REFERENCES

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- 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 α 3 β 1 integrin. Br. J. Dermatol. 137: 856-863.
- Maecker, H.T., et al. 1997. The tetraspanin superfamily: molecular facilitators. FASEB J. 11: 428-442.
- 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.
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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 $\mu g\, lgG_1$ 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 μ g/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-23924 HRP), 200 μ g/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 μ g/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 μ g/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 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 μ g per 1 x 10⁶ 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.

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