



CD37 (K-13): sc-23618

BACKGROUND

Tetraspans 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

- Okochi, H., Kato, M., Nashiro, K., Yoshie, O., Miyazono, K. and Furue, M. 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.
- Maecker, H.T., Todd, S.C. and Levy, S. 1997. The tetraspanin superfamily: molecular facilitators. *FASEB J.* 11: 428-442.
- Knobloch, K.P., Wright, M.D., Ochsenein, A.F., Liesenfeld, O., Lohler, J., Zinkernagel, R.M., Horak, I. and Orinska, Z. 2000. Targeted inactivation of the tetraspanin CD37 impairs T cell-dependent Bcell response under sub-optimal costimulatory conditions. *Mol. Cell. Biol.* 20: 5363-5369.
- 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/>
- LocusLink Report (LocusID: 951). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

Genetic locus: CD37 (human) mapping to 19p13.3; Cd37 (mouse) mapping to 7 B3.

SOURCE

CD37 (K-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of CD37 of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-23618 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

CD37 (K-13) is recommended for detection of CD37 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (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 CD37 siRNA (m): sc-44663.

Molecular Weight of CD37: 40-52 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

- Duitman, E.H., Orinska, Z., Bulanova, E., Paus, R. and Bulfone-Paus, S. 2008. How a cytokine is chaperoned through the secretory pathway by complexing with its own receptor: lessons from interleukin-15 (IL-15)/IL-15 receptor α . *Mol. Cell. Biol.* 28: 4851-4861.

RESEARCH USE

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

PROTOCOLS

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