

VpreB3 (C-15): sc-65200

BACKGROUND

VpreB (also known as CD179a or pre-B lymphocyte 1) is expressed in pre-B lymphocytes, but not in mature B cells or in other blood cell lineages. The gene which encodes VpreB maps to human chromosome 22q11.23. The VpreB and λ 5 genes encode the ι and ω polypeptide chains, respectively, which associate with the Ig- μ chain to form a molecular complex that is expressed on the surface of pre-B cells. This complex presumably regulates Ig gene rearrangements in the early steps of B cell differentiation. In the mouse the two genes are simultaneously expressed in pre-B cells and belong to the same transcription unit. A primary transcript is synthesized from which the pre-B and λ 5 mRNAs are derived by alternative splicing. In the human, however, the two genes are separate and do not belong to the same transcription unit.

REFERENCES

1. Kudo, A., et al. 1987. A second gene, VpreB in the λ 5 locus of the mouse, which appears to be selectively expressed in pre-B lymphocytes. *EMBO J.* 6: 2267-2272.
2. Bauer, S.R., et al. 1988. The human VpreB gene is located on chromosome 22 near a cluster of V λ gene segments. *Immunogenetics* 28: 328-333.
3. Pillai, S., et al. 1988. The ω and ι surrogate immunoglobulin light chains. *Curr. Top. Microbiol. Immunol.* 137: 136-139.
4. Mattei, M.G., et al. 1991. The human pre-B-specific λ -like cluster is located in the 22q11.2-22q12.3 region, distal to the IgC- λ locus. *Genomics* 9: 544-546.
5. Seidl, T., et al. 2001. The VpreB protein of the surrogate light-chain can pair with some μ heavy-chains in the absence of the λ 5 protein. *Eur. J. Immunol.* 31: 1999-2006.
6. Stephan, R.P., et al. 2001. Analysis of VpreB expression during B lineage differentiation in λ 5-deficient mice. *J. Immunol.* 167: 3734-3739.

CHROMOSOMAL LOCATION

Genetic locus: VPREB3 (human) mapping to 22q11.23; Vpreb3 (mouse) mapping to 10 C1.

SOURCE

VpreB3 (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of VpreB3 of human 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-65200 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

VpreB3 (C-15) is recommended for detection of VpreB3 of mouse, rat and human 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), 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).

VpreB3 (C-15) is also recommended for detection of VpreB3 in additional species, including canine.

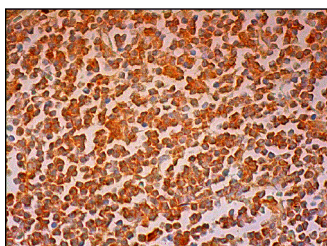
Suitable for use as control antibody for VpreB3 siRNA (h): sc-63214, VpreB3 siRNA (m): sc-63215, VpreB3 shRNA Plasmid (h): sc-63214-SH, VpreB3 shRNA Plasmid (m): sc-63215-SH, VpreB3 shRNA (h) Lentiviral Particles: sc-63214-V and VpreB3 shRNA (m) Lentiviral Particles: sc-63215-V.

Molecular Weight of VpreB3: 16 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



VpreB3 (C-15): sc-65200. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lymph node tissue showing cytoplasmic staining of cells in germinal center and cells in non-germinal center.

RESEARCH USE

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

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Try **VpreB3 (FT-32): sc-135605**, our highly recommended monoclonal alternative to VpreB3 (C-15).