

VpreB (H-55): sc-33128

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 22q11.22. The VpreB and λ five 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. and Melchers, F. 1987. A second gene, Vpre-B 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., Huebner, K., Budarf, M., Finan, J., Erikson, J., Emanuel, B.S., Nowell, P.C., Croce, C.M. and Melchers, F. 1988. The human V(pre)B gene is located on chromosome 22 near a cluster of V (λ -1) gene segments. *Immunogenetics* 28: 328-333.
3. Pillai, S. and Baltimore, D. 1988. The ω and ι surrogate immunoglobulin light chains. *Curr. Top. Microbiol. Immun.* 137: 136-139.
4. Mattei, M.-G., Fumoux, F., Roedel, N., Fougereau, M. and Schiff, C. 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. Licence, S., Persson, C., Mundt, C. and Martensson, I.L. 2003. The VpreB1 enhancer drives developmental stage-specific gene expression *in vivo*. *Eur. J. Immunol.* 33: 1117-1126.

CHROMOSOMAL LOCATION

Genetic locus: VPRED1 (human) mapping to 22q11.22; Vpreb1 (mouse) mapping to 16 A2.

SOURCE

VpreB (H-55) is a rabbit polyclonal antibody raised against amino acids 91-145 mapping at the C-terminus of VpreB 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.

STORAGE

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

PROTOCOLS

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

APPLICATIONS

VpreB (H-55) is recommended for detection of VpreB of mouse, rat and 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for VpreB siRNA (h): sc-44629, VpreB siRNA (m): sc-44630, VpreB shRNA Plasmid (h): sc-44629-SH, VpreB shRNA Plasmid (m): sc-44630-SH, VpreB shRNA (h) Lentiviral Particles: sc-44629-V and VpreB shRNA (m) Lentiviral Particles: sc-44630-V.

Molecular Weight of VpreB: 16 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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


 MONOS
Satisfaction
Guaranteed

Try **VpreB (H-11): sc-514957** or **VpreB (5F251): sc-73266**, our highly recommended monoclonal alternatives to VpreB (H-55).