

# Lambda 5 (M-60): sc-33127

## BACKGROUND

Lambda 5 (also called immunoglobulin lambda-like polypeptide 1 or CD179b antigen) and VpreB comprise the surrogate light chain of the pre-B cell receptor complex. SL chain is also part of a quality control mechanism that tests a  $\mu$ -chain for its ability to pair with conventional L chains. It can form Ig-like complexes with the heavy (H) chain, the DHJHC  $\mu$ -protein or the p55 chain. Production of the surrogate light chain begins at the stage of pro-B cells, continues during the pre-B cell stage and halts at the immature B cell stage. Once pre-BCR is expressed, SL chain expression is turned off. As pre-B II cells proliferate, SL is diluted out, thus limiting pre-BCR formation. Lambda 5 is critical for B cell development in mammals. Expression of Lambda 5 is highest in liver, pre-B lymphocytes and bone marrow, the major source of B cell precursors.

## REFERENCES

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- Bossy, D., et al. 1991. Organization and expression of the lambda-like genes that contribute to the  $\mu$ - $\psi$  light chain complex in human pre-B cells. *Int. Immunol.* 11: 1081-1090.
- Mai, S., et al. 1995. The c-Myc protein represses the lambda 5 and TdT initiators. *Nucleic Acids Res.* 23: 1-9.
- Corcos, D., et al. 1995. Pre-B cell development in the absence of lambda 5 in transgenic mice expressing a heavy-chain disease protein. *Curr. Biol.* 5: 1140-1148.
- Minegishi, Y., et al. 1998. Mutations in the human Lambda 5/14.1 gene result in B cell deficiency and agammaglobulinemia. *J. Exp. Med.* 187: 71-77.
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- Bradl, H., et al. 2003. Interaction of murine precursor B cell receptor with stroma cells is controlled by the unique tail of lambda 5 and stroma cell-associated heparan sulfate. *J. Immunol.* 171: 2338-2348.
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## CHROMOSOMAL LOCATION

Genetic locus: Igll1 (mouse) mapping to 16 A3.

## SOURCE

Lambda 5 (M-60) is a rabbit polyclonal antibody raised against amino acids 31-90 mapping near the N-terminus of Lambda 5 of mouse origin.

## PRODUCT

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

## APPLICATIONS

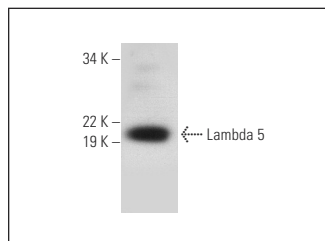
Lambda 5 (M-60) is recommended for detection of Lambda 5 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution 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 Lambda 5 siRNA (m): sc-44544, Lambda 5 shRNA Plasmid (m): sc-44544-SH and Lambda 5 shRNA (m) Lentiviral Particles: sc-44544-V.

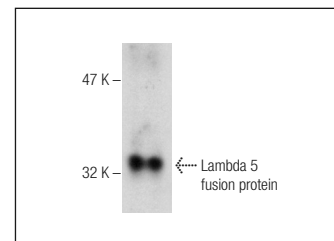
Molecular Weight of Lambda 5: 22 kDa.

Positive Controls: mouse liver extract: sc-2256 or NFS-25 C-3 whole cell lysate: sc-364787.

## DATA



Lambda 5 (M-60): sc-33127. Western blot analysis of Lambda 5 expression in mouse liver tissue extract.



Lambda 5 (M-60): sc-33127. Western blot analysis of mouse recombinant Lambda 5 fusion protein.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **Lambda 5 (A-1): sc-398932** or **Lambda 5 (G-12): sc-398037**, our highly recommended monoclonal alternatives to Lambda 5 (M-60).