

# Ly6G5b (S-15): sc-168493

## BACKGROUND

Members of the lymphocyte antigen 6 superfamily are cysteine-rich and are usually GPI-anchored cell surface proteins having immunologic roles. Most hematopoietic cells express one or more members of the Ly-6 superfamily. Well-studied members of this family include CD59, an inhibitor of the complement cascade, uPAR, which is involved in proteolysis of extracellular matrix proteins, and Lynx-1, a modulator of nictonic acetylcholine receptors. Ly6G5b (lymphocyte antigen 6 complex locus protein G5b) is a 201 amino acid secreted protein that contains one UPAR/Ly6 domain, which is about 80 proteins long and has a conserved pattern of 8 to 10 cysteine residues. The gene encoding Ly6G5b maps within the human major histocompatibility complex class III region on chromosome 6p21.33. There are two isoforms of Ly6G5b that are produced as a result of alternative splicing events.

## REFERENCES

1. Albertella, M.R., et al. 1996. Localization of eight additional genes in the human major histocompatibility complex, including the gene encoding the casein kinase II  $\beta$  subunit (CSNK2B). *Genomics* 36: 240-251.
2. Mallya, M., et al. 2002. Transcriptional analysis of a novel cluster of LY-6 family members in the human and mouse major histocompatibility complex: five genes with many splice forms. *Genomics* 80: 113-123.
3. Xie, T., et al. 2003. Analysis of the gene-dense major histocompatibility complex class III region and its comparison to mouse. *Genome Res.* 13: 2621-2636.
4. Mallya, M., et al. 2006. Characterization of the five novel Ly-6 superfamily members encoded in the MHC, and detection of cells expressing their potential ligands. *Protein Sci.* 15: 2244-2256.
5. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 610433. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
6. Calvanese, V., et al. 2008. Regulation of expression of two LY-6 family genes by intron retention and transcription induced chimerism. *BMC Mol. Biol.* 9: 81.

## CHROMOSOMAL LOCATION

Genetic locus: LY6G5B (human) mapping to 6p21.33.

## SOURCE

Ly6G5b (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Ly6G5b of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-168493 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

Ly6G5b (S-15) is recommended for detection of Ly6G5b of human 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); non cross-reactive with Ly6G5c.

Suitable for use as control antibody for Ly6G5b siRNA (h): sc-95597, Ly6G5b shRNA Plasmid (h): sc-95597-SH and Ly6G5b shRNA (h) Lentiviral Particles: sc-95597-V.

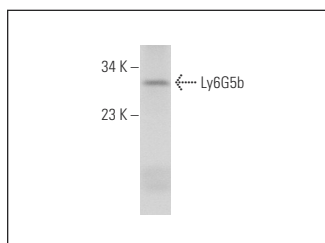
Molecular Weight of Ly6G5b isoform 1/2: 23/17 kDa.

Positive Controls: human lung extract: sc-363767.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



Ly6G5b (S-15): sc-168493. Western blot analysis of Ly6G5b expression in human lung tissue extract.

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