

Ly6G5c (C-14): sc-168495

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 nicotinic acetylcholine receptors. Ly6G5c (lymphocyte antigen 6 complex locus protein G5c) is a 150 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. Ly6G5c is expressed in T-cell lines of fetal and adult lung and may play a role in hematopoietic cell differentiation. The gene encoding Ly6G5b maps within the human major histocompatibility complex class III region on chromosome 6p21.3. There are two isoforms of Ly6G5c 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 β 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.
7. James, I., et al. 2009. Missingness in the T1DGC MHC fine-mapping SNP data: association with HLA genotype and potential influence on genetic association studies. *Diabetes Obes. Metab.* 11 Suppl. 1: 101-107.
8. Blanco, A.M., et al. 2009. A FRET-based assay for characterization of alternative splicing events using peptide nucleic acid fluorescence *in situ* hybridization. *Nucleic Acids Res.* 37: e116.
9. Luke, M.M., et al. 2009. Gene variants associated with ischemic stroke: the cardiovascular health study. *Stroke* 40: 363-368.

CHROMOSOMAL LOCATION

Genetic locus: LY6G5C (human) mapping to 6p21.33.

RESEARCH USE

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

SOURCE

Ly6G5c (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Ly6G5c 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-168495 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Ly6G5c (C-14) is recommended for detection of Ly6G5c of 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with Ly6G5b.

Suitable for use as control antibody for Ly6G5c siRNA (h): sc-95598, Ly6G5c shRNA Plasmid (h): sc-95598-SH and Ly6G5c shRNA (h) Lentiviral Particles: sc-95598-V.

Molecular Weight of Ly6G5c isoform 1: 17 kDa.

Molecular Weight of Ly6G5c isoform 2: 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.

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.