BAT5 (S-18): sc-79867



The Power to Question

BACKGROUND

On human chromosome 6, major histocompatibility complex (MHC) class I and II gene clusters are separated by a 700-kb stretch of sequence known as the MHC class III region. This extremely dense region contains very few genes that have been functionally characterized. MHC class III molecules have very different functions than class I and II molecules. Rather than playing direct roles in the innate and adaptive immune responses, class III molecules encode for products of immunity such as complement components and cytokines. HLA-B-associated transcripts (BATs) map within the MHC class III gene region, which also includes the genes for TNF- α and TNF- β . BAT5 (HLA-B-associated transcript 5), also known as Protein G5, is a 558 amino acid multi-pass membrane protein that belongs to the BAT family. The gene encoding BAT5 maps within a cluster of BAT genes that is implicated in the development of rheumatoid arthritis and Insulin-dependent diabetes mellitus (IDDM).

REFERENCES

- Spies, T., et al. 1989. Human major histocompatibility complex contains a minimum of 19 genes between the complement cluster and HLA-B. Proc. Natl. Acad. Sci. USA 86: 8955-8958.
- Spies, T., et al. 1989. A new cluster of genes within the human major histocompatibility complex. Science 243: 214-217.
- 3. Mathew, P.A., et al. 1995. Identification of a recombinational breakpoint at the BAT5 locus in three intra-H-2 recombinant inbred mouse strains. Exp. Clin. Immunogenet. 12: 261-267.
- 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.
- 5. Gevaert, K., et al. 2003. Exploring proteomes and analyzing protein processing by mass spectrometric identification of sorted N-terminal peptides. Nat. Biotechnol. 21: 566-569.
- 6. Mungall, A.J., et al. 2003. The DNA sequence and analysis of human chromosome 6. Nature 425: 805-811.
- Wan, D., et al. 2004. Large-scale cDNA transfection screening for genes related to cancer development and progression. Proc. Natl. Acad. Sci. USA 101: 15724-15729.
- Harney, S.M., et al. 2008. Fine mapping of the MHC Class III region demonstrates association of AIF1 and rheumatoid arthritis. Rheumatology 47: 1761-1767.

CHROMOSOMAL LOCATION

Genetic locus: BAT5 (human) mapping to 6p21.33; Abhd16a (mouse) mapping to 17 B1.

SOURCE

BAT5 (S-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of BAT5 of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 200 μg IgG in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-79867 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-79867 X, 200 μ g/0.1 ml.

APPLICATIONS

BAT5 (S-18) is recommended for detection of BAT5 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

BAT5 (S-18) is also recommended for detection of BAT5 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for BAT5 siRNA (h): sc-72618, BAT5 siRNA (m): sc-72619, BAT5 shRNA Plasmid (h): sc-72619-SH, BAT5 shRNA Plasmid (m): sc-72619-SH, BAT5 shRNA (h) Lentiviral Particles: sc-72618-V and BAT5 shRNA (m) Lentiviral Particles: sc-72619-V.

BAT5 (S-18) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of BAT5: 63 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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**