SANTA CRUZ BIOTECHNOLOGY, INC.

BAT2 (C-20): sc-79856



BACKGROUND

BAT2, also known as G_2 , is a 2,157 amino acid protein that localizes to both the nucleus and the cytoplasm. Expressed in cell lines of leukemic origin, BAT2 exists as multiple alternatively spliced isoforms and is thought to play a role in the regulation of pre-mRNA splicing. The BAT2 gene maps within a cluster of BAT genes on human chromosome 6 and is implicated in the development of rheumatoid arthritis and Insulin-dependent diabetes mellitus (IDDM). Chromosome 6, on which the BAT2 gene is localized, contains 170 million base pairs and comprises nearly 6% of the human genome. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer, suggesting the presence of a cancer susceptibility locus. Additionally, Porphyria cutanea tarda, Parkinson's disease, Stickler syndrome and a susceptibility to bipolar disorder are all associated with genes that map to chromosome 6.

REFERENCES

- Banerji, J., Sands, J., Strominger, J.L. and Spies, T. 1990. A gene pair from the human major histocompatibility complex encodes large proline-rich proteins with multiple repeated motifs and a single ubiquitin-like domain. Proc. Natl. Acad. Sci. USA 87: 2374-2378.
- Hashimoto, M., Nakamura, N., Obayashi, H., Kimura, F., Moriwaki, A., Hasegawa, G., Shigeta, H., Kitagawa, Y., Nakano, K., Kondo, M., Ohta, M. and Nishimura, M. 1999. Genetic contribution of the BAT2 gene microsatellite polymorphism to the age-at-onset of Insulin-dependent diabetes mellitus. Hum. Genet. 105: 197-199.
- 3. Online Mendelian Inheritance in Man, OMIM™. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 142580. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- 4. Martinez, A., Salido, M., Bonilla, G., Pascual-Salcedo, D., Fernandez-Arquero, M., de Miguel, S., Balsa, A., de la Concha, E.G. and Fernandez-Gutierrez, B. 2004. Association of the major histocompatibility complex with response to infliximab therapy in rheumatoid arthritis patients. Arthritis Rheum. 50: 1077-1082.
- Schneiders, A., Thiel, S., Winkler, J., Möller, P. and Koch, N. 2005. Antibodies generated by a novel DNA vaccination identify the MHC class III encoded BAT2 polypeptide. Vaccine 23: 2540-2550.
- Harney, S.M., Vilariño-Güell, C., Adamopoulos, I.E., Sims, A.M., Lawrence, R.W., Cardon, L.R., Newton, J.L., Meisel, C., Pointon, J.J., Darke, C., Athanasou, N., Wordsworth, B.P. and Brown, M.A. 2008. Fine mapping of the MHC Class III region demonstrates association of AIF1 and rheumatoid arthritis. Rheumatology 47: 1761-1767.
- McKinnon, E., Morahan, G., Nolan, D. and James, I. 2009. Association of MHC SNP genotype with susceptibility to type 1 diabetes: a modified survival approach. Diabetes Obes. Metab. 11: 92-100.

CHROMOSOMAL LOCATION

Genetic locus: PRRC2A (human) mapping to 6p21.33; Prrc2a (mouse) mapping to 17 B1.

RESEARCH USE

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

SOURCE

BAT2 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of BAT2 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-79856 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-79856 X, 200 $\mu g/0.1$ ml.

APPLICATIONS

BAT2 (C-20) is recommended for detection of BAT2 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).

BAT2 (C-20) is also recommended for detection of BAT2 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for BAT2 siRNA (h): sc-72612, BAT2 siRNA (m): sc-72613, BAT2 shRNA Plasmid (h): sc-72612-SH, BAT2 shRNA Plasmid (m): sc-72613-SH, BAT2 shRNA (h) Lentiviral Particles: sc-72612-V and BAT2 shRNA (m) Lentiviral Particles: sc-72613-V.

BAT2 (C-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of BAT2: 228 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203.

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) Immunofluo-rescence: use donkey anti-goat IgG-FITC: sc-2783 (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.