SANTA CRUZ BIOTECHNOLOGY, INC.

C6orf201 (B-8): sc-514971

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Making up nearly 6% of the human genome, chromosome 6 contains around 1,200 genes within 170 million base pairs of sequence. 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. Porphyria cutanea tarda is associated with chromosome 6 through the HFE gene which, when mutated, predisposes an individual to developing this porphyria. Notably, the PARK2 gene, which is associated with Parkinson's disease, and the genes encoding the major histocompatiblity complex proteins, which are key molecular components of the immune system and determine predisposition to rheumatic diseases, are also located on chromosome 6. Stickler syndrome, 21-hydroxylase deficiency and maple syrup urine disease are also associated with genes on chromosome 6. A bipolar disorder susceptibility locus has been identified on the q arm of chromosome 6. The C6orf201 gene product has been provisionally designated C6orf201 pending further characterization.

REFERENCES

1. Mungall, A.J., et al. 2003. The DNA sequence and analysis of human chromosome 6. Nature 425: 805-811.
2. Vuoristo, M.M., et al. 2004. A stop codon mutation in COL11A2 induces exon skipping and leads to non-ocular Stickler syndrome. Am. J. Med. Genet. A 130A: 160-164.
3. McQueen, M.B., et al. 2005. Combined analysis from eleven linkage studies of bipolar disorder provides strong evidence of susceptibility loci on chromosomes 6q and 8q. Am. J. Hum. Genet. 77: 582-595.
4. Safadi, S.S. and Shaw, G.S. 2007. A disease state mutation unfolds the parkin ubiquitin-like domain. Biochemistry 46: 14162-14169.
5. Olsson, K.S., et al. 2007. The HLA-A1-B8 haplotype hitchhiking with the hemochromatosis mutation: does it affect the phenotype? Eur. J. Haematol. 79: 429-434.
6. Park, E., et al. 2007. Modulation of parkin gene expression in noradrenergic neuronal cells. Int. J. Dev. Neurosci. 25: 491-497.
7. Batts, K.P. 2007. Iron overload syndromes and the liver. Mod. Pathol. 20: S31-S39.

CHROMOSOMAL LOCATION

Genetic locus: C6orf201 (human) mapping to 6p25.2.

SOURCE

C6orf201 (B-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 47-64 within an internal region of C6orf201 of human origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-514971 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

C6orf201 (B-8) is recommended for detection of C6orf201 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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 C6orf201 siRNA (h): sc-95188, C6orf201 shRNA Plasmid (h): sc-95188-SH and C6orf201 shRNA (h) Lentiviral Particles: sc-95188-V.

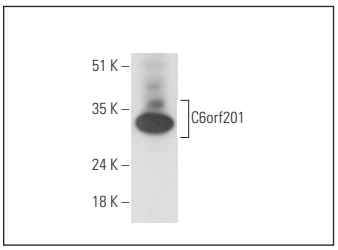
Molecular Weight of C6orf201 isoforms: 23/16/15 kDa.

Positive Controls: human skeletal muscle extract: sc-363776.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



C6orf201 (B-8): sc-514971. Western blot analysis of C6orf201 expression in human skeletal muscle tissue extract.

SELECT PRODUCT CITATIONS

1. Cai, Q., et al. 2023. Whole-genome DNA methylation and DNA methylation-based biomarkers in lung squamous cell carcinoma. iScience 26: 107013.

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 for detailed protocols and support products.