SANTA CRUZ BIOTECHNOLOGY, INC.

G7c (P-14): sc-167941



BACKGROUND

G7c, also known as NG37 or C6orf27, is an 891 amino acid secreted protein that exists as 2 alternatively spliced isoforms. G7c is widely expressed at low levels and is associated with lung cancer susceptibility. The gene encoding G7c maps to human chromosome 6p21.33 and is located in the major hispocompatibility complex class III region. 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. 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

- Brunner, H.G., et al. 1994. A Stickler syndrome gene is linked to chromosome 6 near the COL11A2 gene. Hum. Mol. Genet. 3: 1561-1564.
- 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.
- Snoek, M., et al. 2000. G7c, a novel gene in the mouse and human major histocompatibility complex class III region, possibly controlling lung tumor susceptibility. Immunogenetics 51: 383-386.
- Cesari, R., et al. 2003. Parkin, a gene implicated in autosomal recessive juvenile parkinsonism, is a candidate tumor suppressor gene on chromosome 6q25-q27. Proc. Natl. Acad. Sci. USA 100: 5956-5961.
- 5. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 609693. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Bläker, H., et al. 2008. Recurrent deletions at 6q in early age of onset non-HNPCC- and non-FAP-associated intestinal carcinomas. Evidence for a novel cancer susceptibility locus at 6q14-q22. Genes Chromosomes Cancer 47: 159-164.
- Fan, J., et al. 2010. Linkage disequilibrium mapping of the chromosome 6q21-22.31 bipolar I disorder susceptibility locus. Am. J. Med. Genet. B Neuropsychiatr. Genet. 153B: 29-37.
- Jalil, S., et al. 2010. Associations among behavior-related susceptibility factors in porphyria cutanea tarda. Clin. Gastroenterol. Hepatol. 8: 297-302, 302.e1.

CHROMOSOMAL LOCATION

Genetic locus: C6orf27 (human) mapping to 6p21.33; D17H6S56E-3 (mouse) mapping to 17 B1.

SOURCE

G7c (P-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of G7c of human origin.

RESEARCH USE

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

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-167941 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

G7c (P-14) is recommended for detection of G7c 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).

G7c (P-14) is also recommended for detection of G7c in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for G7c siRNA (h): sc-95536, G7c siRNA (m): sc-145297, G7c shRNA Plasmid (h): sc-95536-SH, G7c shRNA Plasmid (m): sc-145297-SH, G7c shRNA (h) Lentiviral Particles: sc-95536-V and G7c shRNA (m) Lentiviral Particles: sc-145297-V.

Molecular Weight of G7c isoforms: 96/93 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) 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.