

ST18 (C-12): sc-87437

BACKGROUND

ST18 (suppression of tumorigenicity 18), also known as ZNF387 (zinc finger protein 387), is a 1,047 amino acid nuclear protein that is expressed at low levels in heart, liver, kidney, skeletal muscle, pancreas, testis, ovary and prostate. Containing six C₂HC-type zinc fingers and an SMC domain, ST18 is a repressor protein that binds to DNA sequences containing a specific bipartite element. ST18 is considered a transcription factor that represses basal transcription activity from target promoters and Inhibits colony formation in cultured breast cancer cells. ST18 is encoded by a gene located on human chromosome 8, which consists of nearly 146 million base pairs, encodes over 800 genes and is associated with a variety of diseases and malignancies. Schizophrenia, bipolar disorder, Trisomy 8, Pfeiffer syndrome, congenital hypothyroidism, Waardenburg syndrome and some leukemias and lymphomas are thought to occur as a result of defects in specific genes that map to chromosome 8.

REFERENCES

1. Kato, N., et al. 1990. Human proviral mRNAs down regulated in choriocarcinoma encode a zinc finger protein related to Krüppel. *Mol. Cell. Biol.* 10: 4401-4405.
2. Thiesen, H.J. 1990. Multiple genes encoding zinc finger domains are expressed in human T cells. *New Biol.* 2: 363-374.
3. Kashino, G., et al. 2001. Preferential expression of an intact WRN gene in Werner syndrome cell lines in which a normal chromosome 8 has been introduced. *Biochem. Biophys. Res. Commun.* 289: 111-115.
4. Jandrig, B., et al. 2004. ST18 is a breast cancer tumor suppressor gene at human chromosome 8q11.2. *Oncogene* 23: 9295-9302.
5. 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.
6. Agrelo, R., et al. 2006. Epigenetic inactivation of the premature aging Werner syndrome gene in human cancer. *Proc. Natl. Acad. Sci. USA* 103: 8822-8827.
7. Yang, J., et al. 2008. The transcription factor ST18 regulates proapoptotic and proinflammatory gene expression in fibroblasts. *FASEB J.* 22: 3956-3967.

CHROMOSOMAL LOCATION

Genetic locus: ST18 (human) mapping to 8q11.23; St18 (mouse) mapping to 1 A1.

SOURCE

ST18 (C-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of ST18 of human origin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-87437 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ST18 (C-12) is recommended for detection of ST18 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).

Suitable for use as control antibody for ST18 siRNA (h): sc-77586, ST18 siRNA (m): sc-153858, ST18 shRNA Plasmid (h): sc-77586-SH, ST18 shRNA Plasmid (m): sc-153858-SH, ST18 shRNA (h) Lentiviral Particles: sc-77586-V and ST18 shRNA (m) Lentiviral Particles: sc-153858-V.

Molecular Weight of ST18: 115 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.