SANTA CRUZ BIOTECHNOLOGY, INC.

GIN1 (G-14): sc-167978



Der American Geraffer.

BACKGROUND

GIN1 (gypsy retrotransposon integrase-like protein 1), also known as TGIN1 (Ty3/Gypsy integrase 1) or ZH_2C_2 (zinc finger H_2C_2 domain-containing protein), is a 522 amino acid protein containing one integrase catalytic domain. Widely expressed, GIN1 is also found in tumors originating from parathyroid gland, colon, stomach, bladder, uterus and prostate. Three isoforms of GIN1 are produced by alternative splicing events. The gene encoding GIN1 maps to human chromsome 5q21.1. Chromosome 5 contains 181 million base pairs and comprises nearly 6% of the human genome. Deletion of the p arm of chromosome 5 altogether is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome. Treacher Collins syndrome, Cockayne syndrome and familial adenomatous polyposis are also associated with chromosome 5.

REFERENCES

- Dixon, M.J., et al. 1991. The gene for Treacher Collins syndrome maps to the long arm of chromosome 5. Am. J. Hum. Genet. 49: 17-22.
- Saltman, D.L., et al. 1993. A physical map of 15 loci on human chromosome 5q23-q33 by two-color fluorescence *in situ* hybridization. Genomics 16: 726-732.
- Llorens, C., et al. 2001. A mammalian gene evolved from the integrase domain of an LTR retrotransposon. Mol. Biol. Evol. 18: 1597-1600.
- Kadmon, M., et al. 2001. Duodenal adenomatosis in familial adenomatous polyposis coli. A review of the literature and results from the Heidelberg Polyposis Register. Int. J. Colorectal Dis. 16: 63-75.
- 5. South, S.T., et al. 2006. A new genomic mechanism leading to cri-du-chat syndrome. Am. J. Med. Genet. A 140: 2714-2720.
- Aretz, S., et al. 2007. Somatic APC mosaicism: a frequent cause of familial adenomatous polyposis (FAP). Hum. Mutat. 28: 985-992.
- Cleaver, J.E., et al. 2007. Cockayne syndrome exhibits dysregulation of p21 and other gene products that may be independent of transcription-coupled repair. Neuroscience 145: 1300-1308.
- Du, H.Y., et al. 2007. Telomerase reverse transcriptase haploinsufficiency and telomere length in individuals with 5p- syndrome. Aging Cell 6: 689-697.
- Marín, I. 2010. GIN transposons: genetic elements linking retrotransposons and genes. Mol. Biol. Evol. 27: 1903-1911.

CHROMOSOMAL LOCATION

Genetic locus: GIN1 (human) mapping to 5q21.1; Gin1 (mouse) mapping to 1 D.

SOURCE

GIN1 (G-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of GIN1 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-167978 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GIN1 (G-14) is recommended for detection of GIN1 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); non cross-reactive with GIN4.

GIN1 (G-14) is also recommended for detection of GIN1 in additional species, including bovine.

Suitable for use as control antibody for GIN1 siRNA (h): sc-91791, GIN1 siRNA (m): sc-145406, GIN1 shRNA Plasmid (h): sc-91791-SH, GIN1 shRNA Plasmid (m): sc-145406-SH, GIN1 shRNA (h) Lentiviral Particles: sc-91791-V and GIN1 shRNA (m) Lentiviral Particles: sc-145406-V.

Molecular Weight of GIN1 isoform 1: 60 kDa.

Molecular Weight of GIN1 isoform 2: 9 kDa.

Molecular Weight of GIN1 isoform 3: 26 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-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, **D0 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.