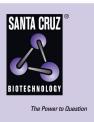
SANTA CRUZ BIOTECHNOLOGY, INC.

FAM101A (Y-13): sc-161572



BACKGROUND

Encoding over 1,100 genes within 132 million bases, chromosome 12 makes up about 4.5% of the human genome. A number of skeletal deformities are linked to chromosome 12 including hypochondrogenesis, achondrogenesis and Kniest dysplasia. Noonan syndrome, which includes heart and facial developmental defects among the primary symptoms, is caused by a mutant form of PTPN11 gene product, SH-PTP2. Chromosome 12 is also home to a homeobox gene cluster which encodes crucial transcription factors for morphogenesis, and the natural killer complex gene cluster encoding C-type lectin proteins which mediate the NK cell response to MHC class I interaction. Trisomy 12p leads to facial development defects, seizure disorders and a host of other symptoms varying in severity depending on the extent of mosaicism, and is most severe in cases of complete trisomy. The FAM101A gene product has been provisionally designated FAM101A pending further characterization.

REFERENCES

- Allen, T.L., Brothman, A.R., Carey, J.C. and Chance, P.F. 1996. Cytogenetic and molecular analysis in trisomy 12p. Am. J. Med. Genet. 63: 250-256.
- Yang, W. and Cole, W.G. 1998. Low basal transcripts of the COL2A1 collagen gene from lymphoblasts show alternative splicing of exon 12 in the Kniest form of spondyloepiphyseal dysplasia. Hum. Mutat. Suppl. 1: S1-S2.
- Trowsdale, J., Barten, R., Haude, A., Stewart, C.A., Beck, S. et al. 2001. The genomic context of natural killer receptor extended gene families. Immunol. Rev. 181: 20-38.
- Zumkeller, W., Volleth, M., Muschke, P., Tönnies, H., Heller, A., Liehr, T., Wieacker, P. and Stumm, M. 2004. Genotype/phenotype analysis in a patient with pure and complete trisomy 12p. Am. J. Med. Genet. A 129: 261-264.
- Kelley, J., Walter, L. and Trowsdale, J. 2005. Comparative genomics of natural killer cell receptor gene clusters. PLoS Genet. 1: e27.
- Nishimura, G., Haga, N., Kitoh, H., Tanaka, Y., Sonoda, T., Kitamura, M., Shirahama, S., Itoh, T., Nakashima, E., Ohashi, H. and Ikegawa, S. 2005. The phenotypic spectrum of COL2A1 mutations. Hum. Mutat. 26: 36-43.
- Segel, R., Peter, I., Demmer, L.A., Cowan, J.M., Hoffman, J.D. and Bianchi, D.W. 2006. The natural history of trisomy 12p. Am. J. Med. Genet. A 140: 695-703.
- Stein, R. 2007. Genetics of Noonan syndrome—a new gene, and the search is still on. Clin. Genet. 72: 402-404.
- 9. van der Burgt, I. 2007. Noonan syndrome. Orphanet J. Rare Dis. 2: 4.

CHROMOSOMAL LOCATION

Genetic locus: FAM101A (human) mapping to 12q24.31; Fam101a (mouse) mapping to 5 F.

SOURCE

FAM101A (Y-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FAM101A 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-161572 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FAM101A (Y-13) is recommended for detection of FAM101A of human and rat origin and cfm of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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); non cross-reactive with other FAM101 family members.

FAM101A (Y-13) is also recommended for detection of FAM101A in additional species, including canine, bovine and porcine.

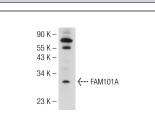
Suitable for use as control antibody for FAM101A siRNA (h): sc-96114, cfm siRNA (m): sc-142303, FAM101A shRNA Plasmid (h): sc-96114-SH, cfm shRNA Plasmid (m): sc-142303-SH, FAM101A shRNA (h) Lentiviral Particles: sc-96114-V and cfm shRNA (m) Lentiviral Particles: sc-142303-V.

Molecular Weight (predicted) of FAM101A: 24 kDa.

Molecular Weight (observed) of FAM101A: 26 kDa.

Positive Controls: Raji whole cell lysate.

DATA



FAM101A (Y-13): sc-161572. Western blot analysis of FAM101A expression in Raji whole cell lysate.

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 or our catalog for detailed protocols and support products.