SANTA CRUZ BIOTECHNOLOGY, INC.

ITBA1 (S-14): sc-243114

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The X and Y chromosomes are the human sex chromosomes. Chromosome X consists of about 153 million base pairs and nearly 1,000 genes. The combination of an X and Y chromosome lead to normal male development while two copies of X lead to normal female development. There are a number of conditions related to an unusual number and combination of sex chromosomes being inherited. More than one copy of the X chromosome with a Y chromosome causes Klinefelter's syndrome. A single copy of X alone leads to Turner's syndrome. More than two copies of the X chromosome, in the absence of a Y chromosome, is known as Triple X syndrome. Color blindness, hemophilia, and Duchenne muscular dystrophy are well known X chromosome-linked conditions which affect males more frequently as males carry a single X chromosome.

REFERENCES

1. Zoppè, M., et al. 1996. The complete sequence of the host cell factor 1 (HCFC1) gene and its promoter: a role for YY1 transcription factor in the regulation of its expression. Genomics 34: 85-91.
2. Faranda, S., et al. 1996. Characterization and fine localization of two new genes in Xq28 using the genomic sequence/EST database screening approach. Genomics 34: 323-327.
3. Bernardino-Sgherri, J., et al. 2002. Overall DNA methylation and chromatin structure of normal and abnormal X chromosomes. Cytogenet. Genome Res. 99: 85-91.
4. Hayashi, T., et al. 2006. Novel form of a single X-linked visual pigment gene in a unique dichromatic color-vision defect. Vis. Neurosci. 23: 411-417.
5. Denoeud, F., et al. 2007. Prominent use of distal 5' transcription start sites and discovery of a large number of additional exons in ENCODE regions. Genome Res. 17: 746-759.
6. Augui, S., et al. 2007. Sensing X chromosome pairs before X inactivation via a novel X-pairing region of the Xic. Science 318: 1632-1636.

CHROMOSOMAL LOCATION

Genetic locus: TMEM187 (human) mapping to Xq28.

RESEARCH USE

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

SOURCE

ITBA1 (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ITBA1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-243114 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ITBA1 (S-14) is recommended for detection of ITBA1 of human origin by Western Blotting (starting dilution 1:200, 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 ITBA1 siRNA (h): sc-91148, ITBA1 shRNA Plasmid (h): sc-91148-SH and ITBA1 shRNA (h) Lentiviral Particles: sc-91148-V.

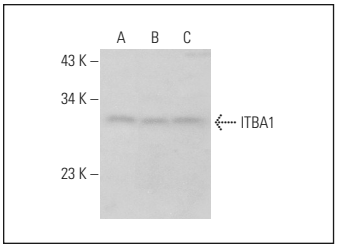
Molecular Weight of ITBA1: 29 kDa.

Positive Controls: U-698-M whole cell lysate: sc-364799, Jurkat whole cell lysate: sc-2204 or K-562 whole cell lysate: sc-2203.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: 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.

DATA



ITBA1 (S-14): sc-243114. Western blot analysis of ITBA1 expression in U-698-M (**A**), Jurkat (**B**) and K-562 (**C**) whole cell lysates.

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.