

FRA10AC1 (L-14): sc-163775

BACKGROUND

C10orf4 (chromosome 10 open reading frame 4), also known as FRA10A or FRA10AC1, is a 315 amino acid nuclear protein that is expressed strongly in kidney, liver, heart, brain and skeletal muscle. Defects in the gene encoding C10orf4 are characterized by an expansion of a polymorphic CGG repeat within the 5'-UTR of the gene; an event that is thought to cause folate-sensitive fragile site FRA10A expression. Expression of this mutated FRA10A protein may be associated with tumorigenesis, neurological disorders and mental retardation. C10orf4 is believed to be conserved between species. Five isoforms of C10orf4, all of which differ in their C-termini, are expressed due to alternative splicing events.

REFERENCES

1. Yu, Y., et al. 2001. Gene expression profiling in human fetal liver and identification of tissue- and developmental-stage-specific genes through compiled expression profiles and efficient cloning of full-length cDNAs. *Genome Res.* 11: 1392-1403.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 608866. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Sarafidou, T., et al. 2004. Folate-sensitive fragile site FRA10A is due to an expansion of a CGG repeat in a novel gene, FRA10AC1, encoding a nuclear protein. *Genomics* 84: 69-81.
4. Deloukas, P., et al. 2004. The DNA sequence and comparative analysis of human chromosome 10. *Nature* 429: 375-381.
5. Wang, Y.H. 2006. Chromatin structure of human chromosomal fragile sites. *Cancer Lett.* 232: 70-78.

CHROMOSOMAL LOCATION

Genetic locus: FRA10AC1 (human) mapping to 10q23.33; Fra10ac1 (mouse) mapping to 19 C3.

SOURCE

FRA10AC1 (L-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FRA10AC1 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-163775 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

FRA10AC1 (L-14) is recommended for detection of FRA10AC1 of mouse, rat and 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).

FRA10AC1 (L-14) is also recommended for detection of FRA10AC1 in additional species, including equine and avian.

Suitable for use as control antibody for FRA10AC1 siRNA (h): sc-90422, FRA10AC1 siRNA (m): sc-140381, FRA10AC1 shRNA Plasmid (h): sc-90422-SH, FRA10AC1 shRNA Plasmid (m): sc-140381-SH, FRA10AC1 shRNA (h) Lentiviral Particles: sc-90422-V and FRA10AC1 shRNA (m) Lentiviral Particles: sc-140381-V.

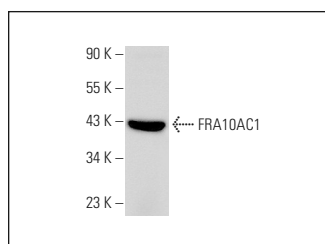
Molecular Weight of FRA10AC1: 38 kDa.

Positive Controls: PC-12 cell lysate: sc-2250 or human heart extract: sc-363763.

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



FRA10AC1 (L-14): sc-163775. Western blot analysis of FRA10AC1 expression in human heart tissue extract.

PROTOCOLS

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