

CRTAC1 (E-14): sc-160254

BACKGROUND

CRTAC1 (cartilage acidic protein 1), also known as CEP-68 (68 kDa chondrocyte-expressed protein) or ASPIC, is a 661 amino acid secreted protein. CRTAC1 is O-glycosylated and contains one EGF-like domain and four FG-GAP repeats. Up-regulated in mesenchymal stem cells undergoing chondrogenic differentiation and also by growth factor BMP-4, CRTAC1 is found in the interterritorial matrix of articular deep zone cartilage. CRTAC1 is expressed as three isoforms produced by alternative splicing events. All isoforms are expressed in bone, cartilage and lung, while isoforms 1 and 2 are expressed in the brain. The gene that encodes CRTAC1 maps to human chromosome 10, which contains over 800 genes and 135 million nucleotides, making up nearly 4.5% of the human genome.

REFERENCES

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- Steck, E., Bräun, J., Pelttari, K., Kadel, S., Kalbacher, H. and Richter, W. 2007. Chondrocyte secreted CRTAC1: a glycosylated extracellular matrix molecule of human articular cartilage. *Matrix Biol.* 26: 30-41.

CHROMOSOMAL LOCATION

Genetic locus: CRTAC1 (human) mapping to 10q24.2; *Crtac1* (mouse) mapping to 19 C3.

SOURCE

CRTAC1 (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CRTAC1 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-160254 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.

APPLICATIONS

CRTAC1 (E-14) is recommended for detection of CRTAC1 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).

CRTAC1 (E-14) is also recommended for detection of CRTAC1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CRTAC1 siRNA (h): sc-90500, CRTAC1 siRNA (m): sc-142587, CRTAC1 shRNA Plasmid (h): sc-90500-SH, CRTAC1 shRNA Plasmid (m): sc-142587-SH, CRTAC1 shRNA (h) Lentiviral Particles: sc-90500-V and CRTAC1 shRNA (m) Lentiviral Particles: sc-142587-V.

Molecular Weight of CRTAC1: 71 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) 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.

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.