SANTA CRUZ BIOTECHNOLOGY, INC.

CBARA1 (V-13): sc-160212

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The Power to Question

BACKGROUND

The EF-hand domain is a 12 amino acid loop motif that is commonly found in proteins that participate in calcium binding events within the cell. EF-hand domains generally exist in a pair that together form a stable four-helix bundle that enables the binding of calcium ions. CBARA1 (calcium binding atopy-related autoantigen 1), also known as CALC or EFHA3, is a 476 amino acid single-pass membrane protein that contains 2 EF-hand domains. Expressed at high levels in epidermal keratinocytes and dermal endothelial cells, CBARA1 functions to induce T cell-mediated autoreactivity, which is accompanied by the release of IFN-γ and can induce an allergic reaction that leads to the formation of IgE. IgE can bind to otherwise innocuous environmental particles and, upon binding, can induce cross-linking with an IgE receptor, an event that is associated with atopic dermatitis (AD). Multiple isoforms of CBARA1 exist due to alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: MICU1 (human) mapping to 10q22.1; Micu1 (mouse) mapping to 10 B4.

SOURCE

CBARA1 (V-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CBARA1 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-160212 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CBARA1 (V-13) is recommended for detection of CBARA1 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).

CBARA1 (V-13) is also recommended for detection of CBARA1 in additional species, including equine, bovine and avian.

Suitable for use as control antibody for CBARA1 siRNA (h): sc-90788, CBARA1 siRNA (m): sc-142033, CBARA1 shRNA Plasmid (h): sc-90788-SH, CBARA1 shRNA Plasmid (m): sc-142033-SH, CBARA1 shRNA (h) Lentiviral Particles: sc-90788-V and CBARA1 shRNA (m) Lentiviral Particles: sc-142033-V.

Molecular Weight of CBARA1: 54 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.

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.