SANTA CRUZ BIOTECHNOLOGY, INC.

CGRP (026-04-1): sc-80467

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Calcitonin is a 32 amino acid polypeptide hormone that preserves skeletal integrity and reduces blood calcium levels by decreasing osteoclast activity in bones, calcium and phosphate reabsorption by kidney tubules and calcium absorption by the intestines. The secretion of Calcitonin from the thyroid is regulated in part by estrogen, which increases Calcitonin mRNA levels. >The Calcitonin gene, CALCA, undergoes tissue-specific RNA alternative splicing, resulting in the production of different mRNA transcripts. One transcript encodes procalcitonin as well as both >calcium-lowering >processed active polypeptides, Calcitonin and katacalcin. An alternative transcript of CALCA encodes the precursor for the neuropeptide known as Calcitonin gene-related peptide 1, also designated CGRP1 or α-CGRP. >CGRP1 is a widely distributed vasodilatory peptide. Calcitonin and katacalcin are produced primarily in the thyroid, while CGRP1 is produced in neuronal cells. A second CGRP-related gene, CALCB, thought to be derived from an gene duplication event, has been identified in mouse, rat and human. Unlike CALCA, CALCB is not subject to alternative splicing and encodes a single transcript designated CGRP2 or β-CGRP. Mature CGRP1 and CGRP2 share significant sequence identity at the protein level differing by only 1-3 amino acid residues, depending on the species.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CALCA (human) mapping to 11p15.2.

SOURCE

CGRP (026-04-1) is a mouse monoclonal antibody raised against synthetic CGRP1 of human origin, with epitope mapping to amino acids 19-37 of the processed active peptide.

PRODUCT

Each vial contains 100 µg IgG_1 in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

CGRP (026-04-1) is recommended for detection of CGRP1 of human origin by solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); may cross-react with CGRP2.

Suitable for use as control antibody for CALCA siRNA (h): sc-39277, CALCA shRNA Plasmid (h): sc-39277-SH and CALCA shRNA (h) Lentiviral Particles: sc-39277-V.

Molecular Weight of pro CGRP: 13 kDa.

Molecular Weight of active form CGRP: 5 kDa.

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 for detailed protocols and support products.