

CGRP (026-05-1): sc-80468

BACKGROUND

Calcitonin is a 32 amino acid polypeptide hormone that preserves skeletal integrity and reduces blood calcium levels by decreasing osteoclast activity in bones and calcium 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 >calcium-lowering, >processed active polypeptides, Calcitonin and katecalcitonin. An alternative transcript of CALCA encodes the precursor for the neuropeptide, referred to as Calcitonin gene-related peptide 1 (CGRP1) or α -CGRP. CGRP is a widely distributed vasodilatory peptide. Calcitonin and katecalcitonin are produced primarily in the thyroid, while CGRP is produced in neuronal cells. A second CGRP related gene, CALCB, thought to be derived from a 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 one to three amino acid residues, depending on the species.

REFERENCES

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CHROMOSOMAL LOCATION

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

SOURCE

CGRP (026-05-1) is a mouse monoclonal antibody raised against synthetic CGRP1 of human origin, with epitope mapping to amino acids 1-18.

PRODUCT

Each vial contains 100 μ g IgG₁ in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

CGRP (026-05-1) is recommended for detection of CGRP1 of human and rat origin and, to a lesser extent, CGRP2 of human origin of human and rat origin by solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CALCA siRNA (r): sc-270063, CALCA shRNA Plasmid (r): sc-270063-SH and CALCA shRNA (r) Lentiviral Particles: sc-270063-V.

Molecular Weight of proform 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.