**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 a-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, 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.

**APPLICATIONS**

CGRP (H-48) is recommended for detection of CGRP1 and CGRP2 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).

CGRP (H-48) is also recommended for detection of CGRP1 and CGRP2 in additional species, including equine, canine, bovine and avian.


**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: CALCA/CALCB (human) mapping to 11p15.2; Calca/Calcb (mouse) mapping to 7 F1.

**SOURCE**

CGRP (H-48) is a rabbit polyclonal antibody raised against amino acids 81-128 mapping at the C-terminus of CGRP 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.

**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.