

## Calcitonin Antibody

Mouse Monoclonal Antibody [Clone CALCA/3310]

Catalog No	Format	Size
796-MSM4-P0	Purified Ab with BSA and Azide at 200ug/ml	20 ug
796-MSM4-P1	Purified Ab with BSA and Azide at 200ug/ml	100 ug
796-MSM4-P1ABX	Purified Ab WITHOUT BSA and Azide at 1.0mg/ml	100 ug

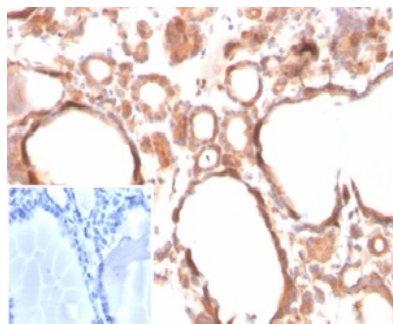
Applications	Tested Dillution	Note
Immunohistochemistry (IHC)	1-2ug/ml	30 min at RT. Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95°C followed by cooling at RT for 20 minutes

### Product Details

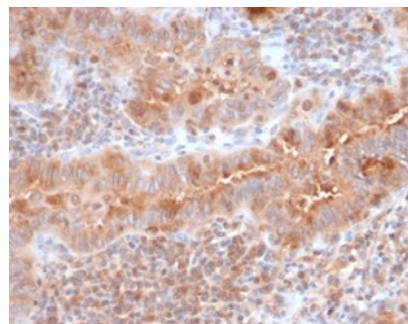
Clone	CALCA/3310
Gene Name	CALCA
Immunogen	Recombinant fragment of human Calcitonin protein (around aa 3-116) (exact sequence is proprietary)
Host	Mouse
Clonality	Monoclonal
Isotype / Light Chain	IgG2b / Kappa
Mol. Weight of Antigen	14.5kDa
Cellular Localization	Secreted
Species Reactivity	Human
Positive Control	Human thyroid.

*\*Optimal dilution for a specific application should be determined.*

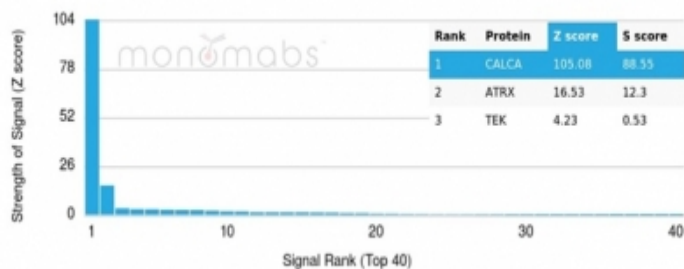
### Product Images for Calcitonin Antibody



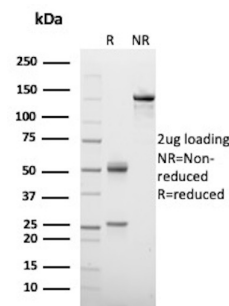
Formalin-fixed, paraffin-embedded human thyroid stained with Calcitonin Mouse Monoclonal Antibody (CALCA/3310). Inset: PBS instead of primary antibody; secondary only negative control.



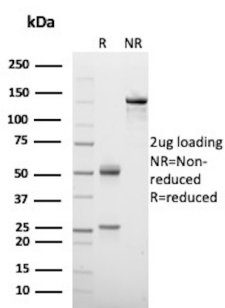
Formalin-fixed, paraffin-embedded human thyroid stained with Calcitonin Mouse Monoclonal Antibody (CALCA/3310). HIER: Tris/EDTA, pH9.0, 45min. 2 °: HRP-polymer, 30min. DAB, 5min.



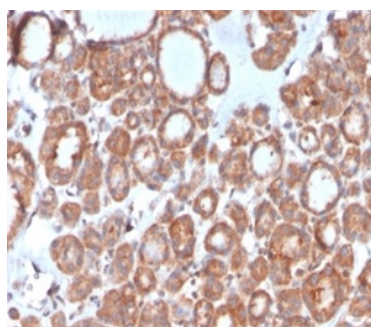
Analysis of Protein Array containing more than 19,000 full-length human proteins using Calcitonin Mouse Monoclonal Antibody (CALCA/3310). Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (MAb) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProt™ array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProt™ are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a MAb to its intended target. A MAb is considered to be specific to its intended target, if the MAb has an S-score of at least 2.5. For example, if a MAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that MAb to protein X is equal to 29.



SDS-PAGE Analysis of Purified Calcitonin Mouse Monoclonal Antibody (CALCA/3310). Confirmation of Purity and Integrity of Antibody.



SDS-PAGE Analysis of Purified Calcitonin Mouse Monoclonal Antibody (CALCA/3310). Confirmation of Purity and Integrity of Antibody.



Formalin-fixed, paraffin-embedded human thyroid stained with Calcitonin Mouse Monoclonal Antibody (CALCA/3310). HIER: Tris/EDTA, pH9.0, 45min. 2 °: HRP-polymer, 30min. DAB, 5min.

## Specificity & Comments

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 katalcalcin. An alternative transcript of CALCA encodes the precursor for the neuropeptide referred to as Calcitonin gene-related peptide 1, also designated CGRP1 or  $\alpha$ -CGRP. CGRP is a widely distributed vasodilatory peptide. Calcitonin and katalcalcin 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  $\beta$ -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.

## Limitations and Warranty

This antibody is available for research use only and is not approved for use in diagnosis. There are no warranties, expressed or implied, which extend beyond this description. Company is not liable for any personal injury or economic loss resulting from this product.

## Supplied As

200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

## Storage and Stability

Antibody with azide - store at 2 to 8 °C. Antibody without azide - store at -20 to -80 °C. Antibody is stable for 24 months. Non-hazardous. No MSDS required.

## Research Areas

Cardiovascular, Neuroscience, Signal Transduction