



HISTOPRIME[®]

CatNo E044

Calcitonin

Lot: See Label

Storage: +2 to +8 °C

Exp. Date: See Label

Polyclonal antibody against Calcitonin

Specificity

Calcitonin is a peptide hormone consisting of 32 amino acids. It is secreted in the thyroid gland by parafollicular cells, the so-called C cells. It is responsible for the incorporation of calcium into bone and thus acts antagonistically to parathyroid hormone (PTH) from the parathyroid gland. Calcitonin counteracts bone resorption by inhibiting osteoclast activity, whereas this is stimulated by PTH.

Homeostasis of calcium in the blood is also regulated by PTH and calcitonin, with calcitonin lowering calcium and phosphate levels and PTH stimulating the uptake of these ions from the digestive tract.

Of interest in pathology is calcitonin in suspected medullary thyroid carcinoma. In addition, small cell lung cancer (SCLC) should also be evaluated for calcitonin, as these cells are often endocrine in origin and may also produce calcitonin.

Contents

Reagents sufficient for about 60-120 tissue sections
1 dropper bottle **HISTOPRIME[®] Calcitonin** (Bottle, 6 ml)

Application

Rabbit polyclonal serum reacts with normal thyroid tissue as well as other calcitonin producing (tumor) tissues, especially medullary thyroid carcinoma.

Fusion Partners

Synthetic human calcitonin (1-32) was used to immunize rabbits.

E044-230110-1/2



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Characterization

Antigen	Human Calcitonin (1-32)
Specificity	Normal thyroid tissue, other calcitonin-containing tissues.
Cross Reactivity	Human, monkey, pig
Clone	Polyclonal
Isotype	Rabbit Ig
Pretreatment	Pretreatment with proteolytic enzymes not required
Incubation Period	1 hour by room temperature
Control Tissue	Thyroid, medullary thyroid carcinoma.
Application	Ready-to-use in PBS, BSA, NaN ₃ (0.09%) pH 7.4(*) suitable on cryostat sections and on formalin-fixed, paraffin-embedded tissue sections.
Recommended Secondary Reagents	Alkaline Phosphatase Vectastain [®] ABC Rabbit IgG (Vector CatNo AK-5001) and Substrate-Kit e.g. Vector [®] Red (Vector CatNo SK-5100). Peroxidase Vectastain [®] ABC-Elite Rabbit IgG (Vector CatNo PK-6101) and Peroxidase Substrate-Kit e.g. DAB (LINARIS CatNo E108) or HistoGreen (LINARIS CatNo E109).

References

1. Blaschko, H., Comline, R.S., Schneider, F.H., Silver, M., Smith, A.D.: Secretion of a chromaffin granule protein, chromogranin, Baylin, S. B., Mendelsohn, G.: Ectopic (inappropriate) hormone production by tumors: mechanisms involved and the biological and clinical implications. Endo. Rev. 1, 45 (1980)
2. Deftos, L.J.: Calcitonin in Clinical Medicine, Advances in Internal Medicine, 23, (1978)

Differential identification is aided by the results from a panel of antibodies. Interpretation must be made within the context of the patient's clinical history and other diagnostics tests by a qualified pathologist.

(*)Note E044 contains Sodium Azide; take adequate precautions!

E044-230110-2/2

For Research use only. Not for use in diagnostic procedure

