Sheep (polyclonal)
Anti-Human Chromogranin A

PRODUCT ANALYSIS SHEET

Catalog Number: AHB0331
Lot Number: See product label
Quantity: 0.1 mL
Form of Antibody: Purified immunoglobulin in phosphate buffered saline.
Preservation: 0.1% sodium azide (Caution: sodium azide is a poisonous and hazardous substance. Handle with care and dispose of properly.)
Purification: Purified by immunoaffinity chromatography and size exclusion chromatography.
Immunogen: A synthetic peptide, corresponding to amino acid residues 19-35 of human chromogranin A (LPVNSPMNKGDTEVMKC), conjugated to keyhole limpet hemocyanin via the C-terminal cysteine residue, using m-maleimidobenzoyl-N-hydroxysuccinimide ester. The sequence is 100% conserved in bovine and 88% conserved in rat.

Specificity: Chromogranin A (accession number NP001266) is a 68-75 kDa protein expressed by endocrine and neuroendocrine tissues. Chromogranin A is a member of a family of acidic, soluble proteins known as the granins, which also includes chromogranins B and C. Chromogranin A is encoded by a single gene located on human chromosome 14. Its production is regulated by steroid hormones, NGF, and other factors.

Within the cell, chromogranin A localizes to the trans-Golgi network, where it plays a role in targeting peptide hormones and neurotransmitters to granules. Chromogranin A can also be cleaved, through the action of convertases, furin, and plasmin, yielding numerous bioactive peptides, such as vasostatin, β-granin, chromostatin, pancreastatin, and parastatin.

While significant levels of chromogranin A are found in normal human plasma, increased levels are detected in plasma from patients with pheochromocytoma and other cancers. Elevated chromogranin A in prostate cancer in which PSA is low is correlated with poor prognosis.

Localization of chromogranin A expression by immunohistochemistry has utility in the identification of neuroendocrine tumors, neuroblastoma, and small-cell lung cancer. Chromogranin A also localizes to senile plaques observed in dementia, where it may play in role in disease progression.

Species Reactivity: Human, rat, and bovine. Other species have not been tested.

Applications: This antibody is suitable for use in immunohistochemistry with formalin-fixed, paraffin-embedded tissue sections. Other standard cross-linking agents may also be used, including Bouin’s fixative. This antibody has also been used successfully in immunoelectron microscopy with resin-embedded tissue sections.

This product is for research use only. Not for use in diagnostic procedures.

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Suggested Working Dilutions: With overnight incubation and PAP procedure, a 1:1,000 to 1:5,000 dilution is recommended. In indirect immunofluorescence, a 1:200 to 1:2,000 dilution is recommended. The optimal concentration should be determined for each specific application.

Recommended Positive Control: Human, rat, and bovine gastric antrum.

Storage: Store at −20°C. Upon initial thawing, apportion into working aliquots and store at −20°C. Avoid repeated freeze-thaw cycles to prevent denaturing the antibody.

Expiration Date: Expires one year from date of receipt when stored as instructed.

References: