SANTA CRUZ BIOTECHNOLOGY, INC.

Elastase-2 (K-14): sc-74798

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Elastase-2, also known as Elastase-2A, CELA2A (chymotrypsin-like elastase family, member 2A) or ELA2A, is a 269 amino acid secreted protein that belongs to the peptidase S1 family and contains one peptidase S1 domain. Expressed in pancreatic tissue, Elastase-2 interacts with CPA1 and catalyzes the hydrolysis of elastin, specifically cleaving the Leu-|-Xaa, Met-|-Xaa and Phe-|-Xaa residues within elastin. Elastase-2B, like Elastase-2, is a 269 amino acid protein that catalyzes the hydrolysis of elastin. The genes encoding Elastase-2 and Elastase-2B map to human chromosome 1, which spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome. Chromosome 1 houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome. Aberrations in chromosome 1 are found in a variety of cancers, including head and neck cancer, malignant melanoma and multiple myeloma.

REFERENCES

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3. Moulard, M., Michon, T., Kerfelec, B. and Chapus, C. 1990. Further studies on the human pancreatic binary complexes involving procarboxypeptidase A. FEBS Lett. 261: 179-183.
4. Online Mendelian Inheritance in Man, OMIM™. 2005. Johns Hopkins University, Baltimore, MD. MIM Number: 609443. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
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CHROMOSOMAL LOCATION

Genetic locus: ELA2A (human) mapping to 1p36.21, RP11-265F14.2 (human) mapping to 1p36.21.

SOURCE

Elastase-2 (K-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Elastase-2A of human origin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-74798 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Elastase-2 (K-14) is recommended for detection of Elastase-2A and Elastase-2B of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Molecular Weight of Elastase-2: 29 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.