

Elastase-1 (H-122): sc-292230

BACKGROUND

Elastase-1 is a serine protease that belongs to the elastase subfamily of the peptidase S1 family. It is secreted by the exocrine pancreas in all mammals but is transcriptionally silent in human pancreas due to mutations that inactivate its promoter and enhancer. Elastase-1 plays a role in the digestion of elastin, fibrin, hemoglobin and albumin and its activity can be inhibited by elafin. In humans, Elastase-1 is expressed only in skin keratinocytes and localizes to the basal cell layer of the epidermis where it may play a role in the detachment of cells from the basement membrane. Elastase-1 expressed in keratinocytes may be inhibited by SLPI (secretory leukocyte protease inhibitor) instead of elafin. In addition, Elastase-1 may be a candidate for diffuse nonepidermolytic palmoplantar keratoderma (NEPPK), an autosomal dominant skin disease.

REFERENCES

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3. Kelsell, D.P., et al. 1995. Genetic linkage studies in non-epidermolytic palmoplantar keratoderma: evidence for heterogeneity. *Hum. Mol. Genet.* 4: 1021-1025.
4. Davies, R.L., et al. 1996. Physical mapping of the human ELA1 gene between D12S361 and D12S347 on chromosome 12q13. *Genomics* 29: 766-768.
5. Rose, S.D., et al. 1997. Evolutionary silencing of the human elastase I gene (ELA1). *Hum. Mol. Genet.* 6: 897-903.
6. van Bergen, B.H., et al. 1997. Expression of SKALP/elafin during wound healing in human skin. *Arch. Dermatol. Res.* 288: 458-462.
7. Talas, U., et al. 2000. Human elastase 1: evidence for expression in the skin and the identification of a frequent frameshift polymorphism. *J. Invest. Dermatol.* 114: 165-170.

CHROMOSOMAL LOCATION

Genetic locus: CELA1 (human) mapping to 12q13.13; Cela1 (mouse) mapping to 15 F1.

SOURCE

Elastase-1 (H-122) is a rabbit polyclonal antibody raised against amino acids 62-183 mapping within an internal region of Elastase-1 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.

APPLICATIONS

Elastase-1 (H-122) is recommended for detection of Elastase-1 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).

Elastase-1 (H-122) is also recommended for detection of Elastase-1 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for Elastase-1 siRNA (h): sc-105326, Elastase-1 siRNA (m): sc-144628, Elastase-1 shRNA Plasmid (h): sc-105326-SH, Elastase-1 shRNA Plasmid (m): sc-144628-SH, Elastase-1 shRNA (h) Lentiviral Particles: sc-105326-V and Elastase-1 shRNA (m) Lentiviral Particles: sc-144628-V.

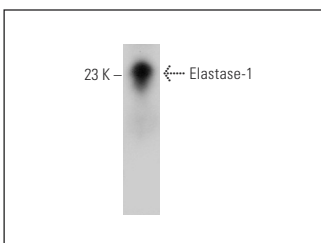
Molecular Weight of Elastase-1: 28 kDa.

Positive Controls: human kidney extract: sc-363764.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Elastase-1 (H-122): sc-292230. Western blot analysis of Elastase-1 expression in human kidney tissue extract.

RESEARCH USE

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

MONOS
Satisfaction
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Try **Elastase-1 (207E10): sc-101403**, our highly recommended monoclonal alternative to Elastase-1 (H-122).