

# Elastase-1 (G-19): sc-54187

## 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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## CHROMOSOMAL LOCATION

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

## SOURCE

Elastase-1 (G-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus 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.

Blocking peptide available for competition studies, sc-54187 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Elastase-1 (G-19) 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), 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 (G-19) is also recommended for detection of Elastase-1 in additional species, including bovine.

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.

## 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.

## STORAGE

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

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **Elastase-1 (207E10): sc-101403**, our highly recommended monoclonal alternative to Elastase-1 (G-19).