SANTA CRUZ BIOTECHNOLOGY, INC.

Elastase-1 (203F4): sc-101402

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 adddition, 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., Stevens, H.P., Ratnavel, R., Bryant, S.P., Bishop, D.T., Leigh, I.M. and Spurr, N.K. 1995. Genetic linkage studies in non-epidermolytic palmoplantar keratoderma: evidence for heterogeneity. Hum. Mol. Genet. 4: 1021-1025.
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5. van Bergen, B.H., Andriessen, M.P., Spruijt, K.I., van de Kerkhof, P.C. and Schalkwijk, J. 1996. Expression of SKALP/elafin during wound healing in human skin. Arch. Dermatol. Res. 288: 458-462.
6. Rose, S.D. and MacDonald, R.J. 1997. Evolutionary silencing of the human Elastase-1 gene (ELA1). Hum. Mol. Genet. 6: 897-903.
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CHROMOSOMAL LOCATION

Genetic locus: ELA1 (human) mapping to 12q13.13.

STORAGE

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

SOURCE

Elastase-1 (203F4) is a mouse monoclonal antibody raised against Elastase-1 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2b} in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Elastase-1 (203F4) is recommended for detection of Elastase-1 of human origin by solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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

Molecular Weight of Elastase-1: 28 kDa.

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.