SANTA CRUZ BIOTECHNOLOGY, INC.

elafin (FL-117): sc-20637

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Elafin, also known as elastase-specific inhibitor (ESI) or skin-derived anti-leukoproteinase (SKALP), is a low molecular weight elastase inhibitor derived from psoriatic skin. Elafin is found in the epidermis of several inflammatory skin diseases, but not in normal human epidermis. It is found in the urine of psoriatic patients, and immunohistochemical studies show that elafin is found in the suprabasal differentiated keratinocytes of psoriatic epidermis. In inflamed skin, elafin exists both as a free form and as an immobilized form covalently attached to the cornified envelopes by transglutaminase cross-linking. Although there is no allelic association between pustular psoriasis (or psoriasis in general) and polymorphism of the PI 3 gene, a decrease of elafin is found in lesional skin of patients with pustular psoriasis compared with plaque-type psoriasis. The gene which encodes elafin maps to human chromosome 20q13.12.

CHROMOSOMAL LOCATION

Genetic locus: PI3 (human) mapping to 20q13.12.

SOURCE

elafin (FL-117) is a rabbit polyclonal antibody raised against amino acids 1-117 representing full length elafin 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.

RESEARCH USE

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

APPLICATIONS

elafin (FL-117) is recommended for detection of elafin of 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for elafin siRNA (h): sc-42866, elafin shRNA Plasmid (h): sc-42866-SH and elafin shRNA (h) Lentiviral Particles: sc-42866-V.

Molecular Weight of elafin precursor/preproelafin: 11 kDa.

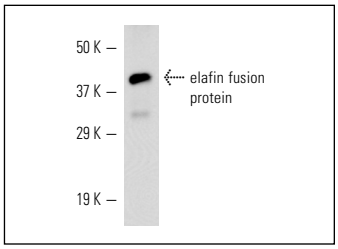
Molecular Weight of mature elafin: 6 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

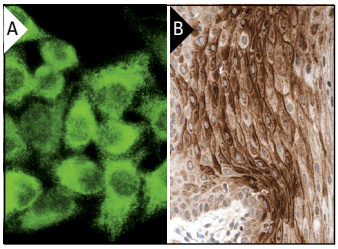
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



elafin (FL-117): sc-20637. Western blot analysis of human recombinant elafin fusion protein.



elafin (FL-117): sc-20637. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human oral mucosa tissue showing membrane staining of surface epithelial cells at high magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program (**B**).

SELECT PRODUCT CITATIONS

1. Schmid, M., et al. 2007. Attenuated induction of epithelial and leukocyte serine antiproteases elafin and secretory leukocyte protease inhibitor in Crohn's disease. J. Leukoc. Biol. 81: 907-915.
2. Saidi, A., et al. 2008. Experimental anti-angiogenesis causes upregulation of genes associated with poor survival in glioblastoma. Int. J. Cancer 122: 2187-2198.
3. Hosaka, Y., et al. 2008. Antimicrobial host defense in the upper gastrointestinal tract. Eur. J. Gastroenterol. Hepatol. 20: 1151-1158.
4. Paczesny, S., et al. 2010. Elafin is a biomarker of graft-versus-host disease of the skin. Sci. Transl. Med. 2: 13ra2.
5. Hilgendorff, A., et al. 2011. Inhibiting lung elastase activity enables lung growth in mechanically ventilated newborn mice. Am. J. Respir. Crit. Care Med. 184: 537-546.