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Filaggrin Rabbit pAb

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Catalog # AP94843

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	P20930
Reactivity	Human, Rat
Predicted	Mouse, Dog, Pig, Horse, Rabbit
Host	Rabbit
Clonality	Polyclonal
Calculated MW	435170
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Filaggrin
Epitope Specificity	21-150/4061
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the S100-fused protein family. Contains 2 EF-hand domains. Contains 23 filaggrin repeats.
Post-translational modifications	Filaggrin is initially synthesized as a large, insoluble, highly phosphorylated precursor containing many tandem copies of 324 AA, which are not separated by large linker sequences. During terminal differentiation it is dephosphorylated and proteolytically cleaved. The N-terminal of the mature protein is heterogeneous, and is blocked by the formation of pyroglutamate. Undergoes deimination of some arginine residues (citrullination).
DISEASE	Defects in FLG are the cause of ichthyosis vulgaris (VI) [MIM:146700]; also known as ichthyosis simplex. Ichthyosis vulgaris is the most common form of ichthyosis inherited as an autosomal dominant trait. It is characterized by palmar hyperlinearity, keratosis pilaris and a fine scale that is most prominent over the lower abdomen, arms, and legs. Ichthyosis vulgaris is characterized histologically by absent or reduced keratohyalin granules in the epidermis and mild hyperkeratosis. The disease can be associated with frequent asthma, eczema or hay fever. Defects in FLG are a cause of susceptibility to dermatitis atopic type 2 (ATOD2) [MIM:605803]. Atopic dermatitis is a complex, inflammatory disease with multiple alleles at several loci thought to be involved in the pathogenesis. It commonly begins in infancy or early childhood and is characterized by a chronic relapsing form of skin inflammation, a disturbance of epidermal barrier function that culminates in dry skin, and IgE-mediated sensitization to food and environmental allergens. It is manifested by lichenification, excoriation, and crusting, mainly on the flexural surfaces of the elbow and knee.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Additional Information

Gene ID	2312
Other Names	Filaggrin, FLG
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

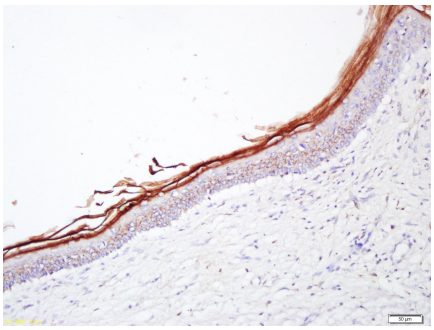
Protein Information

Name	FLG
Function	Aggregates keratin intermediate filaments and promotes disulfide-bond formation among the intermediate filaments during terminal differentiation of mammalian epidermis.
Cellular Location	Cytoplasmic granule. Note=In the stratum granulosum of the epidermis, localized within keratohyalin granules (PubMed:1429717). In granular keratinocytes and in lower corneocytes, colocalizes with calpain-1/CAPN1 (PubMed:21531719).
Tissue Location	Expressed in skin, thymus, stomach, tonsils, testis, placenta, kidney, pancreas, mammary gland, bladder, thyroid, salivary gland and trachea, but not detected in heart, brain, liver, lung, bone marrow, small intestine, spleen, prostate, colon, or adrenal gland (PubMed:19384417). In the skin, mainly expressed in stratum granulosum of the epidermis (PubMed:1429717, PubMed:19384417)

Background

The protein encoded by this gene is an intermediate filament-associated protein that aggregates keratin intermediate filaments in mammalian epidermis. It is initially synthesized as a polyprotein precursor, profilaggrin (consisting of multiple filaggrin units of 324 aa each), which is localized in keratohyalin granules, and is subsequently proteolytically processed into individual functional filaggrin molecules. Mutations in this gene are associated with ichthyosis vulgaris.[provided by RefSeq, Dec 2009].

Images



Tissue/cell: human skin tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min; Incubation: Anti-Filaggrin Polyclonal Antibody, Unconjugated(AP94843) 1:500, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining