abcam

Product datasheet

Anti-TGM1 antibody ab27000

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Overview

Product name	Anti-TGM1 antibody
Description	Rabbit polyclonal to TGM1
Host species	Rabbit
Specificity	This antibody is specific to keratinocyte Transglutaminase 1.
Tested applications	**Suitable for:** WB
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide corresponding to Human TGM1. A 15 residue synthetic peptide derived from a domain specific for TGM1. Database link: **P22735**
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term.
Storage buffer	Constituent: Whole serum
Purity	Whole antiserum
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee	Our **Abpromise guarantee** covers the use of ab27000 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★☆☆☆☆ (1)	1/200 - 1/1000. Predicted molecular weight: 90 kDa.

Target

Function

Catalyzes the cross-linking of proteins and the conjugation of polyamines to proteins. Responsible for cross-linking epidermal proteins during formation of the stratum corneum.

Involvement in disease

Defects in TGM1 are the cause of ichthyosis lamellar type 1 (LI1) [MIM:242300]. LI is a non-bullous ichthyosis, a skin disorder characterized by abnormal cornification of the epidermis. It is one the most severe forms of ichthyoses apparent at birth and persisting throughout life. LI patients are born encased in a tight, shiny, translucent covering called collodion membrane. Over the first weeks of life, the collodion membrane is gradually replaced by generalized large, dark brown, plate-like scales with minimal to no erythroderma. Tautness of facial skin commonly results in ectropion, eclabium and scarring alopecia of the scalp. Common complications are severe heat intolerance and recurrent ear infections.
Defects in TGM1 are a cause of non-bullous congenital ichthyosiform erythroderma (NCIE) [MIM:242100]. NCIE is a non-bullous ichthyosis, a skin disorder characterized by abnormal cornification of the epidermis. Most affected individuals are born with a tight, shiny, translucent covering called collodion membrane. The collodion membrane subsequently evolves into generalized scaling and intense redness of the skin. Clinical features are milder than in lamellar ichthyoses and demonstrate a greater variability in the intensity of erythema, size and type of scales. In contrast to lamellar ichthyoses, scales are usually white, fine and powdery, and palms and soles are severely affected. Patients suffer from palmoplantar keratoderma, often with painful fissures, digital contractures, and loss of pulp volume.
Defects in TGM1 are the cause of ichthyosis congenital autosomal recessive TGM1-related (ARCI-TGM1) [MIM:242300]. A disorder of keratinization with abnormal differentiation and desquamation of the epidermis resulting in two major clinical entities. Lamellar ichthyosis is a condition often associated with an embedment in a collodion-like membrane at birth; skin scales later develop, covering the entire body surface. Non-bullous congenital ichthyosiform erythroderma characterized by fine whitish scaling on an erythrodermal background; larger brownish scales are present on the buttocks, neck and legs.

Sequence similarities

Belongs to the transglutaminase superfamily. Transglutaminase family.

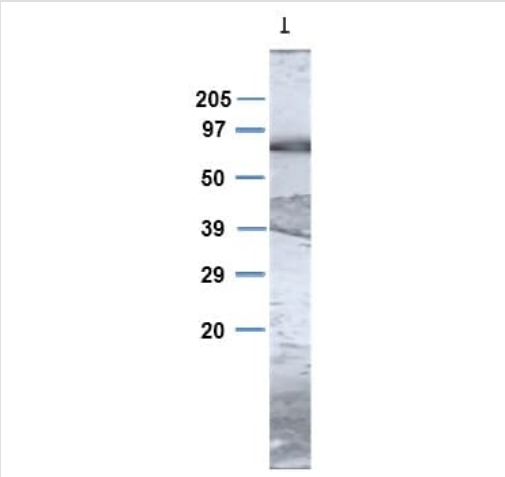
Post-translational modifications

The membrane anchorage region possesses a cluster of five cysteines within which fatty acid(s) may become thioester-linked. It is subject to phorbol ester-stimulated phosphorylation and is hypersensitive to proteolysis, which releases the enzyme in a soluble form.

Cellular localization

Membrane.

Images



Western blot - Anti-TGM1 antibody (ab27000)

Anti-TGM1 antibody (ab27000) at 1/500 dilution + Human recombinant Transglutaminase at 0.5 µg

Secondary

HRP-conjugated anti Rabbit IgG at 1/5000 dilution

Predicted band size: 90 kDa

Observed band size: 90 kDa

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