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Caspase-14 Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10006

Specification

Caspase-14 Antibody - Product Information

Application	**WB**
Primary Accession	P31944
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**27680**

Caspase-14 Antibody - Additional Information

Gene ID 23581

Positive Control	**Jurkat cell lysate**
Application & Usage	**Western blot (1:100)**

Other Names
CASP-14

Target/Specificity
Caspase-14

Antibody Form
Liquid

Appearance
Colorless liquid

Formulation
100 µg (0.5 mg/ml) of antibody in PBS, 0.01 % BSA, 0.01 % thimerosal, and 50 % glycerol, pH 7.2

Handling
The antibody solution should be gently mixed before use.

Reconstitution & Storage
-20 °C

Background Descriptions

Precautions
Caspase-14 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Caspase-14 Antibody - Protein Information

Name CASP14

Function
Non-apoptotic caspase involved in epidermal differentiation. Is the predominant caspase in epidermal stratum corneum (PubMed:15556625). Seems to play a role in keratinocyte differentiation and is required for cornification. Regulates maturation of the epidermis by proteolytically processing filaggrin (By similarity). In vitro has a preference for the substrate [WY]-X-X-D motif and is active on the synthetic caspase substrate WEHD-ACF (PubMed:16854378, PubMed:19960512). Involved in processing of prosaposin in the epidermis (By similarity). May be involved in retinal pigment epithelium cell barrier function (PubMed:25121097). Involved in DNA degradation in differentiated keratinocytes probably by cleaving DFFA/ICAD leading to liberation of DFFB/CAD (PubMed:24743736).

Cellular Location
Cytoplasm. Nucleus

Tissue Location
Expressed in keratinocytes of adult skin suprabasal layers (from spinous layers to the stratum granulosum and stratum corneum) (at protein level). Expressed in keratinocytes of hair shaft and sebaceous glands (at protein level). In psoriatic skin only expressed at very low levels (PubMed:11175259). The p17/10 mature form is expressed in epidermis stratum corneum, the p20/p8 intermediate form in epidermis upper granular cells of the stratum granulosum (PubMed:22825846).

Caspase-14 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Caspase-14 Antibody - Images

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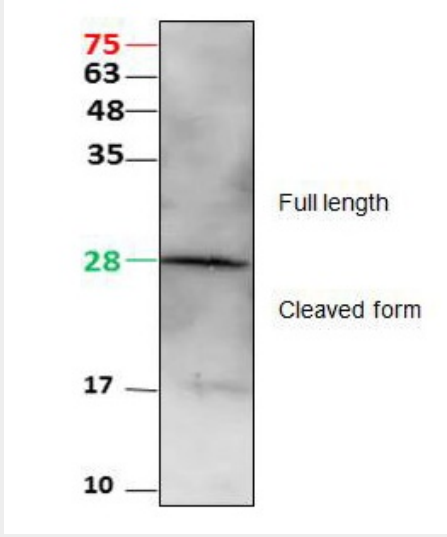

Western blot analysis of Jurkat lysate with Caspase-4 antibody

Caspase-14 Antibody - Background

Caspases are a family of cysteine proteases that play an essential role in carrying out apoptosis. Caspase-14, also named MICE, is a unique member of the caspase family with restricted expression; it is found in embryonic tissues and adult skin. Caspase-14 is weakly processed into p18 and p11 subunits by caspase-8. Caspase-14 may not play a role in apoptosis, but instead may regulate keratinocyte differentiation. Expression of caspase-14 may protect from psoriasis and irradiation damage. Caspase-14 may also be responsible for proteolytic processing of filaggrin during terminal differentiation of keratinocytes.