

Anti-Caspase-14 Antibody
Catalog # ABO11410**Specification**

Anti-Caspase-14 Antibody - Product Information

Application	WB, IHC
Primary Accession	P31944
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Inactive Caspase-14(CASP14) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Caspase-14 Antibody - Additional Information

Gene ID 23581

Other Names

Caspase-14, CASP-14, 3.4.22.-, Caspase-14 subunit p17, mature form, Caspase-14 subunit p10, mature form, Caspase-14 subunit p20, intermediate form, Caspase-14 subunit p8, intermediate form, CASP14

Calculated MW

27680 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat
Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization

Cytoplasm . Nucleus.

Tissue Specificity

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). .

Protein Name

Caspase-14

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human Caspase-14(223-242aa KARKTNPEIQSTLRKRLYLQ), different from the related rat and mouse sequences by four amino acids.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.

Anti-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).

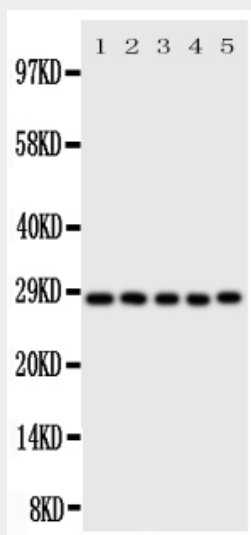
Anti-Caspase-14 Antibody - Protocols

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

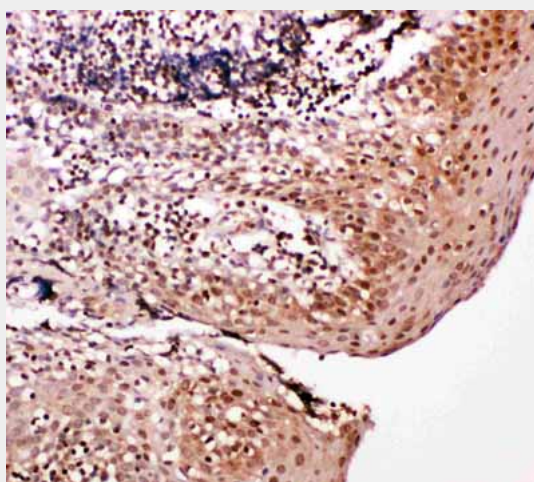
- [Western Blot](#)

- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

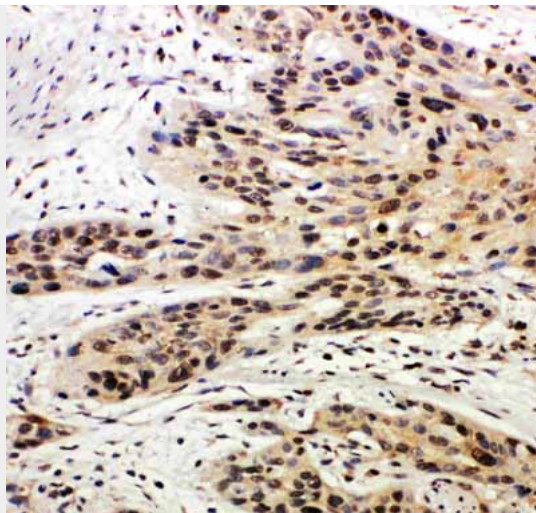
Anti-Caspase-14 Antibody - Images



Anti-Caspase-14 antibody, ABO11410, Western blotting All lanes: Anti Caspase-14 (ABO11410) at 0.5ug/ml
Lane 1: Rat Brain Tissue Lysate at 50ug
Lane 2: Rat Liver Tissue Lysate at 50ug
Lane 3: Rat Spleen Tissue Lysate at 50ug
Lane 4: A431 Whole Cell Lysate at 40ug
Lane 5: NIH3T3 Whole Cell Lysate at 40ug
Predicted bind size: 28KD
Observed bind size: 28KD



Anti-Caspase-14 antibody, ABO11410, IHC(P) IHC(P): Human Tonsil Tissue



Anti-Caspase-14 antibody, ABO11410, IHC(P)IHC(P): Human Oesophagus Squama Cancer Tissue

Anti-Caspase-14 Antibody - Background

Caspase 14 is an enzyme that in humans is encoded by the CASP14 gene. CASP14 belongs to the evolutionarily conserved caspase family. CASP14 was assigned to chromosome 19p13.1. Using Northern blot and semiquantitative RT-PCR analyses, it was shown that CASP14 was transcriptionally upregulated during maintenance of confluent cultures of human epidermal keratinocytes. The expression and processing of this caspase may be involved in keratinocyte terminal differentiation, which is important for the formation of the skin barrier. Caspase 14 seems to play a role in keratinocyte differentiation and cornification and probably regulates maturation of the epidermis by proteolytically processing filaggrin.