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Caspase-14 Antibody

Rabbit mAb
Catalog # AP90975

Product Information

Application	WB, IHC, IF, FC, ICC, IP, IHF
Primary Accession	P31944
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	CASP14; Caspase-14; Caspase 14; MICE; CASP-14;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	27680

Additional Information

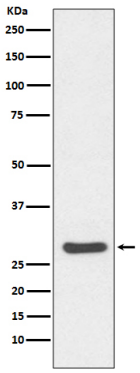
Dilution	WB 1:500~1:2000 IHC 1:50~1:200 ICC/IF 1:50~1:200 IP 1:50 FC 1:50
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human Caspase-14
Description	Caspases are a family of cysteine proteases that play an essential role in carrying out apoptosis. Caspase-14, also 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. May also be responsible for proteolytic processing of filaggrin during terminal differentiation of keratinocytes.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

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).

Images



Western blot analysis of Caspase-14 expression in Human skin lysate.

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