10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Caspase 14 Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP51963

Product Information

Application	WB
Primary Accession	P31944
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	27680

Additional Information

Gene ID	23581
Other Names	Caspase-14, CASP-14, 3422-, Caspase-14 subunit p19, Caspase-14 subunit p10, CASP14
Dilution	WB~~1:1000
Format	0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%
Storage	Store at -20 °C.Stable for 12 months from date of receipt

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).

Background

Believed to be a non-apoptotic caspase which is involved in epidermal differentiation. Seems to play a role in keratinocyte differentiation and cornification. Probably regulates maturation of the epidermis by proteolytically processing filaggrin (By similarity).

References

Eckhart L.,et al.Biochem. Biophys. Res. Commun. 277:655-659(2000).
Pistritto G.,et al.Cell Death Differ. 9:995-1006(2002).
Rasmussen H.H.,et al.Electrophoresis 13:960-969(1992).
Lippens S.,et al.Cell Death Differ. 7:1218-1224(2000).
Chien A.J.,et al.Biochem. Biophys. Res. Commun. 296:911-917(2002).