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CASP14 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP6846b

Specification

CASP14 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession P31944

CASP14 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 23581

Other Names
Caspase-14, CASP-14, 3422-, Caspase-14 subunit p19, Caspase-14 subunit p10, CASP14

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP6846b was selected from the C-term region of human CASP14. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

CASP14 Antibody (C-term) Blocking Peptide - Protein Information

Name CASP14

CASP14 Antibody (C-term) Blocking Peptide - Background

CASP14 is a member of the cysteine-aspartic acid protease (caspase) family. Sequential activation of caspases plays a central role in the execution-phase of cell apoptosis. Caspases exist as inactive proenzymes which undergo proteolytic processing at conserved aspartic residues to produce two subunits, large and small, that dimerize to form the active enzyme. This caspase has been shown to be processed and activated by caspase 8 and caspase 10 in vitro, and by anti-Fas agonist antibody or TNF-related apoptosis inducing ligand in vivo.

CASP14 Antibody (C-term) Blocking Peptide - References

Hosgood,H.D. III, et.al., Occup Environ Med 66 (12), 848-853 (2009)

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).

CASP14 Antibody (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides