

Caspase-14 Antibody
Catalog # ASC10156**Specification**

Caspase-14 Antibody - Product Information

Application	WB, IHC
Primary Accession	O89094
Other Accession	NP_033939 , 6753280
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	Predicted: 28 kDa

Application Notes	Observed: 27 kDa KDa Caspase-14 antibody can be used for the detection of caspase-14 by Western blot at 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL.
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Caspase-14 Antibody - Additional Information

Gene ID	12365
Other Names	
Caspase-14 Antibody: MICE, mini-ICE, Caspase-14, Mini-ICE, CASP-14, caspase 14	

Target/Specificity
Casp14;**Reconstitution & Storage**

Caspase-14 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

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 which is involved in epidermal differentiation. Seems to play a role in keratinocyte differentiation and is required for cornification (PubMed:18156206). Regulates maturation of the epidermis by proteolytically processing filaggrin (PubMed:21654840). In vitro is equally active on the synthetic caspase substrates WEHD-ACF and IETD-AFC. Involved in processing of prosaposin in the epidermis (PubMed:24872419). May be involved in retinal pigment epithelium cell barrier function (By similarity).

Cellular Location

Cytoplasm. Nucleus

Tissue Location

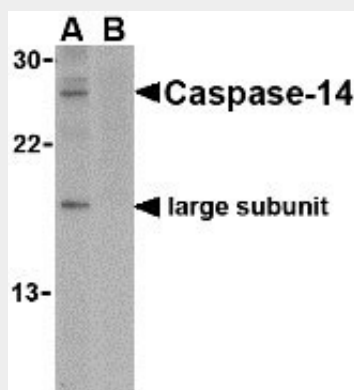
Embryo, adult liver and less in adult brain and kidney. Expressed in differentiating keratinocytes of embryonic skin (at protein level). Expressed in keratinocytes of adult skin suprabasal layers (at protein level).

Caspase-14 Antibody - Protocols

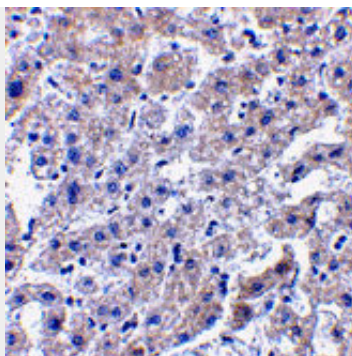
Provided below are standard protocols that you may find useful for product applications.

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

Caspase-14 Antibody - Images



Western blot analysis of caspase-14 in Jurkat cell lysate in the (A) absence or (B) presence of blocking peptide with caspase-14 antibody at 1 µg/mL.



Immunohistochemistry of caspase-14 in human liver tissue with caspase-14 antibody at 2.5 $\mu\text{g/mL}$.

Caspase-14 Antibody - Background

Caspase-14 Antibody: Caspases are a family of cysteine proteases that can be divided into apoptotic and inflammatory caspase subfamilies. Unlike the apoptotic caspases, members of the inflammatory subfamily are generally not involved in cell death but are associated with the immune response to microbial pathogens. Members of this subfamily include caspase-1, -4, -5, and -12 and can activate proinflammatory cytokines such as IL-1 β and IL-18. Caspase-14 is highly expressed in embryonic but not adult tissues. It is 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. The expression and processing of this caspase may be involved in the keratinocyte terminal differentiation, which is important for the formation of the skin barrier.

Caspase-14 Antibody - References

Martinon F and Tschopp J. Inflammatory caspases: linking an intracellular innate immune system to autoinflammatory diseases. *Cell* 2004; 117:561-74.
Zhivotovsky B and Orrenius S. Caspase-2 function in response to DNA damage. *Biochim. Biophys. Res. Comm.* 2005; 331:859-67.
Kuida K, Lippke JA, Ku G, et al. Altered cytokine export and apoptosis in mice deficient in interleukin-1 beta converting enzyme. *Science* 1995; 267:2000-3.
Gracie JA, Robertson SE, and McInnes IB. Interleukin-18. *J. Leukoc. Biol.* 2003; 73:213-224.