

Caspase-14/CASP14 Protein, Human (His)

Cat. No.:	HY-P7743
Synonyms:	rHuCaspase-14, His; Caspase-14; CASP-14; CASP14
Species:	Human
Source:	E. coli
Accession:	P31944 (S2-Q242)
Gene ID:	23581
Molecular Weight:	Approximately 31.0 kDa

PROPERTIES

AA Sequence	<p> S N P R S L E E E K Y D M S G A R L A L I L C V T K A R E G S E E D L D A L E H M F R Q L R F E S T M K R D P T A E Q F Q E E L E K F Q Q A I D S R E D P V S C A F V V L M A H G R E G F L K G E D G E M V K L E N L F E A L N N K N C Q A L R A K P K V Y I I Q A C R G E Q R D P G E T V G G D E I V M V I K D S P Q T I P T Y T D A L H V Y S T V E G Y I A Y R H D Q K G S C F I Q T L V D V F T K R K G H I L E L L T E V T R R M A E A E L V Q E G K A R K T N P E I Q S T L R K R L Y L Q H H H H H H </p>
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against PBS, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>Caspase 14 is a member of the caspase family. Caspase 14 possesses an unusually short prodomain and is highly expressed in embryonic tissues but absent from most of the adult tissues except for the skin^[1]. Caspase-14 is a protease that is mainly expressed in suprabasal epidermal layers and activated during keratinocyte</p>
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cornification^[2].

In contrast to many other caspase family members, murine caspase-14 is not cleaved by granzyme B, caspase-1, caspase-2, caspase-3, caspase-6, caspase-7 or caspase-11, but is weakly processed into p18 and p11 subunits by murine caspase-8^[2]. Caspase-14 is a seemingly non-apoptotic caspase involved in keratinocyte differentiation and cornification. Caspase-14 possesses a conserved role in barrier formation through involvement in terminal differentiation and fusion of the cytotrophoblast^[3].

REFERENCES

[1]. S Hu, et al. Caspase-14 is a novel developmentally regulated protease. *J Biol Chem*

[2]. M Van de Craen, et al. Identification of a new caspase homologue: caspase-14. *Cell Death Differ*. 1998 Oct;5(10):838-46.

[3]. L White, et al. Caspase-14: a new player in cytotrophoblast differentiation. *Reprod Biomed Online*. 2007 Mar;14(3):300-7.

Caution: Product has not been fully validated for medical applications. For research use only.

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