Caspase-14 (human), (recombinant)

Caspase-14 is considered a member of the caspase-1 subfamily and is the only subfamily member with a short (or absent) N-terminal prodomain. In mouse, caspase-14 is highly expressed in embryos, and in adult skin. Within the skin, caspase-14 is present only in the suprabasal layers of the epidermis. A deficiency in caspase-14 expression and processing is associated with psoriasis lesions, raising the possibility that low caspase-14 levels may be among the factors that cause the disease. Elevated caspase-14 expression has been reported in ductal carcinoma *in situ* and invasive breast cancers. Unlike other procaspases, which are processed by cleavage after aspartate residues, procaspase-14 processing occurs between Ile^{152} and Lys^{153}. In the presence of the kosmotropic salt, sodium citrate, both recombinant caspase-14, cut *in vitro* after Asp^{146} by granzyme B9, and the endogenous form extracted from human epidermal stratum corneum, are activated to cleave tetrapeptide substrates incorporating the sequence WEHD.

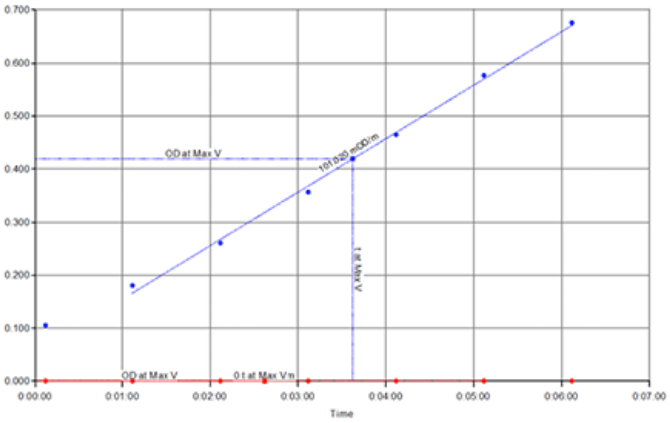
Ordering Information

Order Online »

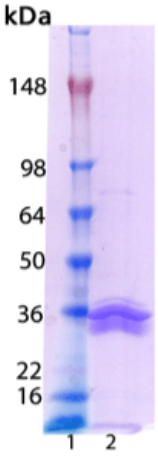
ENZ-PRT206-0020	20µg

Manuals, SDS & CofA

View Online »



Activity assay of Caspase-14 (Prod. No. ENZ-PRT206): Enzyme incubated with Ac-WEHD-pNA (Prod. No. ALX-260-082), 200 µM, in Caspase-14 assay buffer (1.1 M sodium citrate, 100 mM HEPES/NaOH, pH 7.0, 60 mM NaCl, 0.01% CHAPS and 5 mM DTT) at 37C for 6 minutes, reading with 1 minute intervals. Blue: 2 µL of enzyme; Red: Blank- no enzyme.



SDS-PAGE analysis: Lane 1: MW Marker, Lane 2: 2 µg Caspase-14 (Prod. No. ENZ-PRT206).

Handling & Storage

Handling	Centrifuge vial before opening. For prolonged storage, dilute to working aliquots and store at -80°C. Avoid freeze/thaw cycles.
Long Term Storage	-80°C
Shipping	Blue Ice

Regulatory Status

RUO - Research Use Only

Product Details

Application Notes	Useful tool to study the enzyme regulation and kinetics, cleave target substrates, screen for inhibitors.
Formulation	Lyophilized from sterile PBS, pH 7.4, 5% trehalose, 5% mannitol.
MW	~ 30kDa
Reconstitution	Reconstitute in sterile water.
Source	Produced in *E. coli.* Human caspase-14 (2-242 aa) fused to a polyhistidine tag at the N-terminus.
UniProt ID	P31944

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