

## Recombinant Human Caspase-14/CASP14 Protein (His Tag)

Catalog No. PKSH032177

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

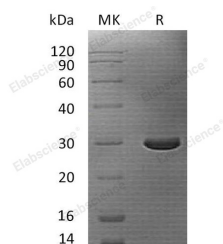
### Description

|                                    |   |
|------------------------------------|---|
| <b>Synonyms</b>                    | Caspase-14;CASP-14;CASP14;MGC119078;MGC119079 |
| <b>Species</b>                     | Human   |
| <b>Expression Host</b>             | E.coli  |
| <b>Sequence</b>                    | Ser2-Gln242                                   |
| <b>Accession</b>                   | P31944  |
| <b>Calculated Molecular Weight</b> | 28.7 kDa                                      |
| <b>Observed molecular weight</b>   | 31 kDa  |
| <b>Tag</b>                         | C-His   |
| <b>Bioactivity</b>                 | Not validated for activity                    |

### Properties

|                       |   |
|-----------------------|---|
| <b>Purity</b>         | > 95 % as determined by reducing SDS-PAGE.  |
| <b>Endotoxin</b>      | < 1.0 EU per µg of the protein as determined by the LAL method.   |
| <b>Storage</b>        | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.             |
| <b>Shipping</b>       | This product is provided as lyophilized powder which is shipped with ice packs.   |
| <b>Formulation</b>    | Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.<br>Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.<br>Please refer to the specific buffer information in the printed manual. |
| <b>Reconstitution</b> | Please refer to the printed manual for detailed information.  |

### Data



> 95 % as determined by reducing SDS-PAGE.

### Background

Caspase 14 (CASP14) is an enzyme that belongs to the peptidase C14A family. The Caspase 14 protein is complexed of unprocessed caspase-14 and processed 19 kDa (p19) and 10 kDa (p10) subunits. Sequential activation of caspases plays a

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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. CASP14 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. The expression and processing of this caspase may be involved in keratinocyte terminal differentiation, which is important for the formation of the skin barrier. It is believed to be a non-apoptotic caspase which is involved in epidermal differentiation, keratinocyte differentiation and cornification. CASP14 probably regulates maturation of the epidermis by proteolytically processing filaggrin.