

# Active Recombinant Human GZMH protein, His-tagged

**Cat. No.** GZMH-3646H    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Active Recombinant Human GZMH protein(P20718)(19-246 aa), fused with N-terminal His tag, was expressed in E.coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>ProteinLength</b>    | 19-246 aa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Form</b>             | PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Bio-activity</b>     | <p>Granzyme H is a member of the granzyme family of serine proteases found specifically in the cytotoxic granules of cytotoxic T lymphocytes (CTL) and natural killer (NK) cells. Granzyme H's functions are largely unknown. The more abundant expression of Granzyme H than Granzyme B in NK cells suggests that Granzyme H may complement the pro-apoptotic function of Granzyme B in this cell type. Human Granzyme H is synthesized as a precursor (246 residues) with a signal peptide (residues 1-18), a propeptide (residues 19-20) and a mature chain (residues 21-246). The purified recombinant human Granzyme H consists of residues 19 to 246 which activity was measured by its ability to cleaves a thioester substrate Z-Lys-SBzl•HCl. The reaction was performed in 0.05 M Tris, 0.15 M NaCl, 0.01% Triton X-100, pH 8.0 (Assay Buffer), initiated by addition 50 µL of various concentrations of GZMH (diluted by Assay Buffer) to 50 µL of 1.2 mM Substrate and DTNB mixture. The final well serves as a negative control with no GZMH, replaced with 50 µL assay buffer.</p> |

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Incubated at 25°C for 5min, then read at a wavelength of 405 nm. The specific activity of recombinant human Granzyme H is >300 pmol/min/g.

|                       |                                                                                                                                          |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Molecular Mass</b> | 29.1kDa                                                                                                                                  |
| <b>Endotoxin</b>      | <1.0EU per 1µg (determined by the LAL method).                                                                                           |
| <b>Purity</b>         | > 95%                                                                                                                                    |
| <b>Storage</b>        | Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Store at -20°C for 12 months. Aliquot and store at -80°C for 12 months. |
| <b>Reconstitution</b> | Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.                                                     |

## GENE INFORMATION

|                        |                                                                                                                                                                                                                                                                                                  |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | GZMH granzyme H (cathepsin G-like 2, protein h-CCPX) [ Homo sapiens ]                                                                                                                                                                                                                            |
| <b>Official Symbol</b> | GZMH                                                                                                                                                                                                                                                                                             |
| <b>Synonyms</b>        | GZMH; granzyme H (cathepsin G-like 2, protein h-CCPX); CTSG2; granzyme H; CCP X; CGL 2; CSP C; CTLA1; cathepsin G-like 2; cytotoxic serine protease C; cytotoxin serine protease-C; cytotoxic T-lymphocyte proteinase; cytotoxic T-lymphocyte-associated serine esterase 1; CCP-X; CGL-2; CSP-C; |
| <b>Gene ID</b>         | 2999                                                                                                                                                                                                                                                                                             |
| <b>mRNA Refseq</b>     | NM_033423                                                                                                                                                                                                                                                                                        |
| <b>Protein Refseq</b>  | NP_219491                                                                                                                                                                                                                                                                                        |

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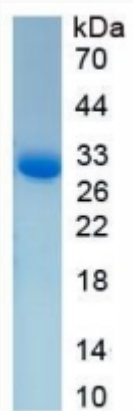
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