

## Recombinant Human IL7 Protein

Cat. No. IL7-518H    Lot. No. (See product label)

### SPECIFICATION

|                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Overview | Recombinant human IL7 protein                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Species          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| ProteinLength    | 177                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Description      | <p>The protein encoded by this gene is a cytokine important for B and T cell development. This cytokine and the hepatocyte growth factor (HGF) form a heterodimer that functions as a pre-pro-B cell growth-stimulating factor. IL7 is found to be a cofactor for V(D)J rearrangement of the T cell receptor beta (TCRB) during early T cell development. This cytokine can be produced locally by intestinal epithelial and epithelial goblet cells, and may serve as a regulatory factor for intestinal mucosal lymphocytes. IL7 plays an essential role in lymphoid cell survival, and in the maintenance of naive and memory T cells. Alternative splicing results in multiple transcript variants encoding distinct isoforms. Additional splice variants have been described but their presence in normal tissues has not been confirmed. Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection can be a potent inducer of proinflammatory cytokines and chemokines which may defend against the infection, but may also mediate destructive lung injury. Elevated serum IL7 levels, together with several other circulating cytokines and chemokines, has been found to be associated with the severity of Coronavirus Disease 19 (COVID-19).</p> |
| Form             | Lyophilized                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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|                       |                                                                                                                                                                                                                                                                                                   |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>AA Sequence</b>    | MFHVSFRYIFGLPPLILVLLPVASSDCDIEGKDGKQYESVLMV/SIDQLLDSMKEIGSN<br>CLNNEFNFFKRHICDANKEGMFLFRAARKLRQFLKMNSTGDFDLHLLKVSEGTTILL<br>NCTGQVKGRKPAALGEAQPTKSLEENKSLKEQKKLNDLCFLKRLLQEIKTCWNKILM<br>GTKEH                                                                                                    |
| <b>Purity</b>         | > 98%                                                                                                                                                                                                                                                                                             |
| <b>Applications</b>   | WB; ELISA; FACS; FC                                                                                                                                                                                                                                                                               |
| <b>Stability</b>      | This bioreagent is stable at 4 centigrade (short-term) and -70 centigrade(long-term).<br>After reconstitution, sample may be stored at 4 centigrade for 2-7 days and below -18<br>centigrade for future use.                                                                                      |
| <b>Storage</b>        | At -20 centigrade.                                                                                                                                                                                                                                                                                |
| <b>Storage Buffer</b> | PBS (pH 7.4-7.5). Sterile-filtered colorless solution.                                                                                                                                                                                                                                            |
| <b>Reconstitution</b> | Reconstitute in sterile distilled H <sub>2</sub> O to no less than 100 µg/mL; dilute reconstituted<br>stock further in other aqueous solutions if needed. Please review COA for lot-specific<br>instructions. Final measurements should be determined by the end-user for optimal<br>performance. |

## GENE INFORMATION

|                        |                                                |
|------------------------|------------------------------------------------|
| <b>Gene Name</b>       | IL7 interleukin 7 [ Homo sapiens (human) ]     |
| <b>Official Symbol</b> | IL7                                            |
| <b>Synonyms</b>        | IL7; interleukin 7; interleukin-7; IL 7; IL-7; |
| <b>Gene ID</b>         | 3574                                           |

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|                |           |
|----------------|-----------|
| mRNA Refseq    | NM_000880 |
| Protein Refseq | NP_000871 |
| MIM            | 146660    |
| UniProt ID     | P13232    |

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