

# Recombinant Human CD3E Protein, C-His-tagged

**Cat. No.** CD3E-169H    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| <b>Product Overview</b> | Recombinant Human CD3E Protein with C-His tag was expressed in E. coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Description</b>      | <p>When T cells encounter antigens via the T cell receptor (TCR), information about the quantity and quality of antigens is relayed to the intracellular signal transduction machinery. This activation process depends mainly on CD3 (Cluster of Differentiation 3), a multiunit protein complex that directly associates with the TCR. CD3 is composed of four polypeptides: <math>\zeta</math>, <math>\gamma</math>, <math>\epsilon</math> and <math>\delta</math>. Each of these polypeptides contains at least one immunoreceptor tyrosine-based activation motif (ITAM). Engagement of TCR complex with foreign antigens induces tyrosine phosphorylation in the ITAM motifs and phosphorylated ITAMs function as docking sites for signaling molecules such as ZAP-70 and p85 subunit of PI-3 kinase. TCR ligation also induces a conformational change in CD3<math>\epsilon</math>, such that a proline region is exposed and then associates with the adaptor protein Nck.</p> |
| <b>Molecular Mass</b>   | ~11 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>AA Sequence</b>      | DGNEEMGGITQTPYKVSISGTTVILTCPQYPGSEILWQHNDKNIGGDEDDKNIGSDE<br>DHLSLKEFSELEQSGYYVCYPRGSKPEDANFYLYLRARCENCMEMD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Purity</b>           | Transferred into competent cells and the supernatant was purified by NI column affinity chromatography and the purity is > 85% (by SDS-PAGE).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

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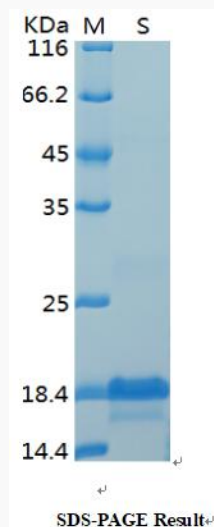
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|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Notes</b>            | For research use only, not for use in diagnostic procedure.                                                                                                                                                                                                                               |
| <b>Storage</b>          | Store at 4 centigrade short term. Aliquot and store at -20 centigrade long term. Avoid freeze-thaw cycles.                                                                                                                                                                                |
| <b>Concentration</b>    | ≥0.5 mg/mL                                                                                                                                                                                                                                                                                |
| <b>Storage Buffer</b>   | PBS, 4M Urea, pH7.4                                                                                                                                                                                                                                                                       |
| <b>GENE INFORMATION</b> |                                                                                                                                                                                                                                                                                           |
| <b>Gene Name</b>        | CD3E CD3e molecule, epsilon (CD3-TCR complex) [ Homo sapiens (human) ]                                                                                                                                                                                                                    |
| <b>Official Symbol</b>  | CD3E                                                                                                                                                                                                                                                                                      |
| <b>Synonyms</b>         | CD3E; CD3e molecule, epsilon (CD3-TCR complex); CD3e antigen, epsilon polypeptide (TiT3 complex); T-cell surface glycoprotein CD3 epsilon chain; CD3-epsilon; T-cell surface antigen T3/Leu-4 epsilon chain; T-cell antigen receptor complex, epsilon subunit of T3; T3E; TCRE; FLJ18683; |
| <b>Gene ID</b>          | 916                                                                                                                                                                                                                                                                                       |
| <b>mRNA Refseq</b>      | NM_000733                                                                                                                                                                                                                                                                                 |
| <b>Protein Refseq</b>   | NP_000724                                                                                                                                                                                                                                                                                 |
| <b>MIM</b>              | 186830                                                                                                                                                                                                                                                                                    |
| <b>UniProt ID</b>       | P07766                                                                                                                                                                                                                                                                                    |

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## SDS-PAGE



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