

## Recombinant Human CD247/CD3-ZETA Protein (GST Tag)

**Catalog Number:** PDEH100665

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

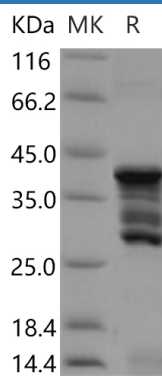
### Description

|                      |   |
|----------------------|---|
| <b>Species</b>       | Human   |
| <b>Source</b>        | E.coli-derived Human CD247 protein Arg52-Arg164, with an N-terminal GST |
| <b>Calculated MW</b> | 40.2 kDa  |
| <b>Observed MW</b>   | 28-43 kDa   |
| <b>Accession</b>     | P20963-1  |
| <b>Bio-activity</b>  | Not validated for activity  |

### Properties

|                       |  |
|-----------------------|--|
| <b>Purity</b>         | > 90% as determined by reducing SDS-PAGE.  |
| <b>Endotoxin</b>      | < 10 EU/mg 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 in PBS with 5% Trehalose and 5% Mannitol.  |
| <b>Reconstitution</b> | It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.   |

### Data



> 92 % as determined by reducing SDS-PAGE.

### Background

CD247, also known as CD3-ZETA, belongs to the CD3Z/FCER1G family. It contains 3 ITAM domains. As a cell receptor zeta, CD247 forms the T-cell receptor-CD3 complex together with T-cell receptor alpha/beta and gamma/delta heterodimers, and with CD3-gamma, -delta and -epsilon. The zeta chain plays an important role in coupling antigen recognition to several intracellular signal-transduction pathways. Low expression of the antigen results in impaired immune response. Two alternatively spliced transcript variants encoding distinct isoforms have been found for CD247 gene. Defects in CD247 can cause immunodeficiency due to defect in CD3-zeta. An immunological deficiency characterized by T-cells impaired immune response to alloantigens, tetanus toxoid and mitogens. CD247 may play a role in assembly and expression of the TCR complex as well as signal transduction upon antigen triggering.

### For Research Use Only

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