

#### DESCRIPTION

|                           |   |
|---------------------------|---|
| <b>Species Reactivity</b> | Human   |
| <b>Specificity</b>        | Detects human SIT1 in direct ELISAs and Western blots.  |
| <b>Source</b>             | Polyclonal Goat IgG   |
| <b>Purification</b>       | Antigen Affinity-purified   |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human SIT1<br>Gln65-Ser196<br>Accession # Q9Y3P8  |
| <b>Formulation</b>        | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.<br>*Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS. |

#### APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

|                     | <b>Recommended Concentration</b> | <b>Sample</b>          |
|---------------------|----------------------------------|------------------------|
| <b>Western Blot</b> | 0.1 µg/mL                        | Recombinant Human SIT1 |

#### PREPARATION AND STORAGE

|                                |  |
|--------------------------------|--|
| <b>Reconstitution</b>          | Reconstitute at 0.2 mg/mL in sterile PBS.  |
| <b>Shipping</b>                | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.<br>*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C   |
| <b>Stability &amp; Storage</b> | <b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul> |

#### BACKGROUND

SIT1 (SHP-2-interacting transmembrane adapter 1; also signaling threshold-regulating transmembrane adapter 1) is a 35-40 kDa type I transmembrane glycoprotein that belongs to a diverse group of transmembrane adapter proteins. It is expressed on thymocytes, plasma cells and T cells. When engaged, SIT1 downregulates TCR signaling. Mature human SIT1 is 172 amino acids (aa) in length. It contains a short extracellular domain (aa 25-40) that undergoes homodimerization and an extensive intracellular region (aa 62-196) that contains three key phosphorylation sites (Tyr90/169/188). Over aa 65-196, human SIT1 is 86% and 80% aa identical to canine and mouse SIT1, respectively.