



Recombinant Protein Technical Manual  
Recombinant Human SIGIRR/TIR8 Protein (His Tag)  
RPES3314

#### Product Data:

**Product SKU:** RPES3314

**Size:** 100µg

**Species:** Human

**Expression host:** HEK293 Cells

**Uniprot:** Q6IA17

#### Protein Information:

**Molecular Mass:** 14 kDa

**AP Molecular Mass:** 25-35 kDa

**Tag:** C-His

**Bio-activity:**

**Purity:** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** 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.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile PBS, pH 7.4

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** TIR8

## Immunogen Information:

**Sequence:** Met 1-His 118

## Background:

Single Ig IL-related receptor (SIGIRR) or TIR8 is a member of Toll-like receptor-interleukin 1 receptor signaling (TLR-ILR) receptor superfamily. Although SIGIRR/TIR8 shows the typical conserved motifs that characterize the ILR and Toll superfamily, it is structurally and functionally distinct from both. SIGIRR/TIR8 has only one Ig domain in its extracellular portion whereas the ILR family contains three Ig folds. An unusually long cytoplasmic domain is reminiscent of the structure of drosophila Toll, yet the SIGIRR peptide sequence is more closely related to ILRI. SIGIRR/TIR8 was mainly expressed in mouse and human epithelial tissues such as kidney, lung and gut. Resting and activated T and B lymphocytes and monocytes-macrophages expressed little or no SIGIRR/TIR8, with the exception of the mouse GG2EE macrophage line. Inflammation is enhanced in SIGIRR-deficient mice. SIGIRR negatively modulates immune responses. Inflammation is enhanced in SIGIRR-deficient mice, as shown by their enhanced chemokine induction after IL injection and reduced threshold for lethal endotoxin challenge.