

## SIGIRR Protein, Human, Recombinant (hFc)

### General Information

Synonyms:	single immunoglobulin and toll-interleukin 1 receptor (TIR) domain;TIR8
Protein Construction:	Met1-His118
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q6IA17-1
Molecular Weight:	39.29 kDa (Predicted); 50-70 kDa (Due to glycosylation)

### QC Testing

Biological Activity:	Activity testing is not tested. It is theoretically active, but we cannot guarantee it.
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from 0.22 μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

### Preparation and Storage

#### Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

#### Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

#### Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

TIR8, also known as single Ig IL-1-related receptor, is a member of the IL-1 receptor/Toll-like receptor (TLR) superfamily, which acts as an intracellular decoy for components of the signaling pathway. Structurally, it is characterized by a single extracellular Ig domain, an intracellular TIR domain and 95-aa cytoplasmic tail. Recently, TIR8 was shown to inhibit NF- $\kappa$ B activation by members of the IL-1/TLR family. The inhibitory activity of TIR8 was associated with trapping of TRAF6 and IRAK1.

Reference

Wald D,et al. (2003) SIGIRR, a negative regulator of Toll-like receptor-interleukin 1 receptor signaling. Nat Immunol. 4(9): 920-7.

Polentarutti N,et al. (2003) Unique pattern of expression and inhibition of IL-1 signaling by the IL-1 receptor family member TIR8/SIGIRR. Eur Cytokine Netw. 14(4): 211-8.

Wald D,et al. (2003) SIGIRR, a negative regulator of Toll-like receptor-interleukin 1 receptor signaling. Nat Immunol. 4(9): 920-7.

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