## Recombinant Human SIGIRR/TIR8 Protein (His Tag)

#### Catalog No. PKSH030883

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

Description		
Synonyms	TIR8	
Species	Human	
Expression Host	HEK293 Cells	
Sequence	Met 1-His 118	
Accession	Q6IA17-1	
Calculated Molecular Weight	14 kDa	
Observed molecular weight	25-35 kDa	
Tag	C-His	
Bioactivity	Not validated for activity	
Properties		
Purity	> 95 % as determined by reducing SDS-PAGE.	
Endotoxin	< 1.0 EU per $\mu$ g of the protein as determined by the LAL method.	
Storage	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.	
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.	
Formulation	Lyophilized from sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.	
Reconstitution	Please refer to the printed manual for detailed information.	

Data

KDa	MK	R
116	-	
66.2	-	
45.0	-	
35.0	-	
25.0	-	
18.4 14.4	=	

> 95 % as determined by reducing SDS-PAGE.

## Background

Single Ig IL-1-related receptor (SIGIRR) or TIR8 is a member of Toll-like receptor-interleukin 1 receptor signaling (TLR-IL-1R) receptor superfamily. Although SIGIRR/TIR8 shows the typical conserved motifs that characterize the IL-1R and

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Toll superfamily; it is structurally and functionally distinct from both. SIGIRR/TIR8 has only one Ig domain in its extracellular portion whereas the IL-1R 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 IL-1RI. 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-1 injection and reduced threshold for lethal endotoxin challenge.

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