

**DESCRIPTION**

<b>Source</b>	Chinese Hamster Ovary cell line, CHO-derived		
	Human TLR6 (Asn32-Asn583) Accession # AAY88759	IEGRMD	Human IgG <sub>1</sub> (Pro100-Lys330)
	N-terminus		C-terminus

<b>N-terminal Sequence Analysis</b>	Asn32
<b>Structure / Form</b>	Disulfide-linked homodimer
<b>Predicted Molecular Mass</b>	89.9 kDa (monomer)

**SPECIFICATIONS**

<b>SDS-PAGE</b>	100-110 kDa, reducing conditions
<b>Activity</b>	Measured by its binding ability in a functional ELISA. When peptidoglycan is immobilized at 10 µg/mL (100 µL/well), the concentration of Recombinant Human TLR6 Fc Chimera that produces 50% of the optimal binding response is approximately 0.05-0.25 µg/mL.
<b>Endotoxin Level</b>	<0.10 EU per 1 µg of the protein by the LAL method.
<b>Purity</b>	>90%, by SDS-PAGE under reducing conditions and visualized by silver stain.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 100 µg/mL in PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <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>● 3 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**BACKGROUND**

The Toll-like family of molecules serve as pattern recognition receptors that activate the immune system in response to microbial pathogens. Toll-like receptors (TLRs) are type I transmembrane proteins in either the plasma membrane or the membranes of endosomal structures. TLRs contain a large number of leucine-rich repeats (LRRs) in their extracellular domains (ECD) and a cytoplasmic tail with one signal transducing Toll/IL-1 receptor (TIR) domain (1, 2). Mature human TLR6 is an approximately 115 kDa protein that consists of a 555 amino acid (aa) ECD, a 21 aa transmembrane segment, and a 189 aa cytoplasmic domain (3). Within the ECD, human TLR6 shares 72% aa sequence identity with mouse and rat TLR6. TLR6 is expressed on the surface of macrophages, monocytes, neutrophils, dermal endothelial cells, and alveolar epithelial cells in ligand-independent association with TLR2 (4-7). TLR2 also associates with TLR1, creating a functional receptor complex with specificity for related microbial ligands (4, 8, 9). TLR6 and TLR2 cooperate in the recognition of acylated bacterial and mycoplasma lipopeptides, peptidoglycans, and glycosylphosphatidylinositols (4-6, 10-13). TLR6 plays an important role in the control of Th17 responses and IL-23 production during allergic inflammation and fungal-induced asthma (7).

**References:**

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