

Product Data Sheet

TLR2 Protein, Mouse (sf9, His)

Cat. No.:	HY-P73590
Synonyms:	CD282; TIL4; TLR2; Toll-like receptor 2
Species:	Mouse
Source:	Sf9 insect cells
Accession:	Q9QUN7 (M1-Q587)
Gene ID:	24088
Molecular Weight:	Approximately 65 kDa

PROPERTIES	
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of 20 mM Tris, 500 mM NaCl, pH 7.4, 10% Glycerol. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu\text{g}/\text{mL}$ in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION	
Background	TLR2 Protein collaborates with LY96 to initiate the innate immune response against bacterial lipoproteins and microbial of wall components. Additionally, it cooperates with TLR1 or TLR6 for the response to specific lipopeptides, acting through MYD88 and TRAF6 to activate NF-kappa-B, induce cytokine secretion, and trigger inflammation. TLR2 forms activation clusters, like TLR2:TLR6:CD14:CD36 and TLR2:TLR1:CD14, in response to different ligands, leading to cell surface signaling and subsequent Golgi targeting via a lipid-raft dependent pathway. Notably, TLR2 recognizes M.tuberculosis antigen, including EsxA (ESAT-6), and serves as a major receptor for various M.tuberculosis lipoproteins, influencing antigen-presenting cell functions. Its interactions with TICAM2, LY96, TLR1, TLR6, MYD88, TICAM1, CNPY3, ATG16L1, non-modified M.tuberculosis protein MPT83, PPP1R11, and TIRAP contribute to its diverse roles in the immune response.

Caution: Product has not been fully validated for medical applications. For research use only.

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