

CTLA-4 Protein, Human (126a.a, HEK293, His)

Cat. No.:	HY-P70684
Synonyms:	Cytotoxic T-lymphocyte protein 4; Cytotoxic T-lymphocyte-associated antigen 4; CTLA-4; CD152; CTLA4
Species:	Human
Source:	HEK293
Accession:	P16410 (K36-D161)
Gene ID:	1493
Molecular Weight:	20-25 kDa

PROPERTIES

AA Sequence	K A M H V A Q P A V V L A S S R G I A S F V C E Y A S P G K A T E V R V T V L R Q A D S Q V T E V C A A T Y M M G N E L T F L D D S I C T G T S S G N Q V N L T I Q G L R A M D T G L Y I C K V E L M Y P P P Y Y L G I G N G T Q I Y V I D P E P C P D S D
Biological Activity	10 µg/mL (100 µL/well) of immobilized Mouse B7-1-Fc can bind Human CTLA-4-His with an ED ₅₀ value of 5-50 ng/mL.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
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	<p>GMP CTLA-4, a pivotal inhibitory receptor, emerges as a principal negative regulator orchestrating T-cell responses within the intricate framework of immune modulation. This regulatory function stems from the distinctive property of GMP CTLA-4, displaying significantly heightened affinity for its natural B7 family ligands, CD80 and CD86, compared to the cognate stimulatory coreceptor CD28. This pronounced difference in binding affinity positions GMP CTLA-4 to competitively engage with CD80/B7-1 and CD86/B7.2, exerting a suppressive influence on T-cell activation and finely tuning immune responses. The homodimeric structure of GMP CTLA-4, intricately linked by disulfide bonds, further underscores its role as a molecular</p>
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sentinel in immune regulation. Additionally, GMP CTLA-4 interacts with ICOSLG, contributing to its multifaceted engagement in immune checkpoint pathways.

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

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