

## CTLA-4 Protein, Rat (HEK293, His)

<b>Cat. No.:</b>	HY-P74215
<b>Synonyms:</b>	Cytotoxic T-lymphocyte associated protein 4; CTLA4; CD152
<b>Species:</b>	Rat
<b>Source:</b>	HEK293
<b>Accession:</b>	Q62859 (E36-D161)
<b>Gene ID:</b>	63835
<b>Molecular Weight:</b>	Approximately 21-30 kDa due to the glycosylation.

### PROPERTIES

<b>AA Sequence</b>	<p>E A I Q V T Q P S V    V L A S S H G V A S    F P C E Y A S S H N    T D E V R V T V L R</p> <p>Q T N D Q V T E V C    A T T F T V K N T L    G F L D D P F C S G    T F N E S R V N L T</p> <p>I Q G L R A A D T G    L Y F C K V E L M Y    P P P Y F V G M G N    G T Q I Y V I D P E</p> <p>P C P D S D</p>
<b>Biological Activity</b>	Measured by its ability to inhibit IL-2 secretion by stimulated Jurkat human acute T cell leukemia cells. The ED <sub>50</sub> for this effect is 0.231 µg/mL when stimulated with 1 µg/mL Recombinant Human B7-1 in the presence of PHA, corresponding to a specific activity is 4.329×10 <sup>3</sup> U/mg.
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
<b>Storage &amp; Stability</b>	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.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	CTLA-4 protein operates as a key inhibitory receptor, serving as a major negative regulator in T-cell responses. Its pivotal role lies in the potent affinity CTLA-4 exhibits for its natural B7 family ligands, CD80 and CD86, a binding strength surpassing that of their counterpart stimulatory coreceptor, CD28. This heightened affinity enables CTLA-4 to effectively temper T-cell activation, forming a crucial component of the regulatory mechanisms governing immune responses. The nuanced balance
-------------------	---

---

between inhibitory and stimulatory signals orchestrated by CTLA-4 and its ligands plays a central role in modulating the intensity and duration of T-cell-mediated immune reactions.

---

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA