

CTLA-4 Protein, Canine (HEK293, His)

Cat. No.:	HY-P75320
Synonyms:	Cytotoxic T-lymphocyte associated protein 4; CTLA4; CD152
Species:	Canine
Source:	HEK293
Accession:	Q9GKP2 (K36-D161)
Gene ID:	403696
Molecular Weight:	Approximately 19-25 kDa due to the glycosylation.

PROPERTIES

AA Sequence	K G M H V A Q P A V V L A S S R G V A S F V C E Y G S S G N A A E V R V T V L R Q A G S Q M T E V C A A T Y T V E D E L A F L D D S T C T G T S S G N K 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 V G M G N G T Q I Y V I D P E P C P D S D
Biological Activity	Measured by its ability to inhibit IL-2 secretion by stimulated Jurkat human acute T cell leukemia cells. The ED ₅₀ for this effect is 76.8 ng/mL, corresponding to a specific activity is 1.3×10 ⁴ U/mg.
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	CTLA-4 protein functions as a critical inhibitory receptor, playing a pivotal role as a major negative regulator in T-cell responses. The distinguishing feature of CTLA-4 lies in its significantly stronger affinity for its natural B7 family ligands, CD80 and CD86, compared to the affinity of their corresponding stimulatory coreceptor, CD28. This heightened affinity enables CTLA-4 to effectively counterbalance and suppress T-cell activation, contributing to the intricate regulation of immune responses. The dynamic interplay between CTLA-4 and its ligands underscores its significance in fine-tuning the immune
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system and maintaining a delicate equilibrium between activation and inhibition in T-cell-mediated immunity.

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

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