GITR Protein, Canine (HEK293, His)

Cat. No.:	HY-P78640
Synonyms:	AITR; GITR; TNFRSF18; CD357
Species:	Canine
Source:	HEK293
Accession:	D7F619-1 (G23-P154)
Gene ID:	606971
Molecular Weight:	19-25 kDa

PROPERTIES

AA Sequence	G A P S C G P G R L L R G T G T D A R C C R P C A P G E A A E K V C P E L D C T C V Q P G F H C G D P Q C K T C K H H T C P P G Q E V R P H G N F N F G F E C V D C A A G T F S G G Q E G R C K P W S D C S Q F G Y P T T F P G N K T H N A V C S P G L P P T E P R D P
Biological Activity	Measured by its binding ability in a functional ELISA. Immobilized Canine GITR at 2 μg/mL (100 μL/well) can bind Biotinylated Human GITR Ligand. The ED_{50} for this effect is 73.67 ng/mL, corresponding to a specific activity is 1.36×10^4 Unit/mg.
Appearance	Lyophilized powder.
Formulation	Lyophilized a 0.22 μm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. 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	GITR (Glucocorticoid-induced TNFR-related protein, also known as TNFRSF18) is a type I transmembrane protein. GITR stimulates T lymphocyte proliferation and partially reverses the immunosuppressive function of CD4+CD25+ treg. GITR is expressed on regulatory T cells (Tregs) and some activated immune cells, including effector T lymphocytes, natural killer (NK) cells, and neutrophils. The amino acid sequence of human GITR protein has low homology with that of mouse GITR

protein. GITR does not have any enzymatic activity, and the signal is propagated by recruiting members of the TRAF1 family, specifically TRAF1, TRAF2, and TRAF5, into the GITR signaling complex. Signal transduction is then mediated through the NF-kB and MAPK pathways. Protects T cells from cell death induced by TCR activation. GITR is activated by its ligand GITRL (TNFSF18). The NOS induction effect of GITR on mouse macrophages was time-dependent and dose-dependent. GITR inhibits proliferation and induces apoptosis of Multiple Myeloma (MM) cells in vitro and in vivo[1][2][3][4].

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