IL-17A Protein, Mouse (HEK293, His-Avi)

Cat. No.:	HY-P78320
Synonyms:	CTLA-8; IL17; IL17A; IL-17CTLA-8; interleukin 17A
Species:	Mouse
Source:	HEK293
Accession:	Q62386 (A26-A158)
Gene ID:	16171
Molecular Weight:	20-28 kDa

PROPERTIES

Biological Activity	Immobilized Mouse IL-17A, His Tag at 1μg/ml (100μl/well) on the plate. Dose response curve for Mouse IL-17RA, hFc Tag with the EC_{50} of 64.9ng/ml determined by ELISA.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Normally 5% trehalose is added as protectant before lyophilization.
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.
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

Interleukin-17A (IL-17A), also known as CTLA-8, belongs to the IL-17 cytokine family. IL-17A is expressed in memory Th17 cells and is a product of memory $CD4^+$ T cells. IL-17A is also produced by a wide variety of immune cells, including $CD8^+$ T cells, γδT cells, natural killer T (NKT) cells, monocytes, and neutrophils[1][2][3].

The mouse IL-17A shares 63.23% amino acid sequence identity with human and 87.33% identity with rat.

IL-17A plays a critical role in host defense mechanisms against many bacterial and fungal pathogens as well as allergic and autoimmune responses. IL-17A induces the production of antimicrobial peptides (defensins and S100 proteins), cytokines (IL-6, G-CSF, and GM-CSF), chemokines (CXCL1, CXCL5, IL-8, CCL2, and CCL7), and matrix metalloproteinases (MMP1, MMP3, and MMP13). IL-17A is detrimental in viral infection through promoting neutrophilic inflammation. IL-17A is a homodimeric cytokine and shares similar biological activities with IL-17F. IL-17A binds to IL-17RA with high affinity, and IL-17RA is required for the biological activity of IL-17A. In tumorigenesis, IL-17A recruits myeloid derived suppressor cells (MDSCs) to dampen anti-tumor immunity. IL-17A also enhances tumor growth in vivo through the induction of IL-6[1][2].

IL-17A can be used for the research of autoimmune diseases, infection and cancer[1][4].

REFERENCES

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