IL-17A Protein, Rabbit

Cat. No.:	HY-P73175
Synonyms:	CTLA8; CTLA-8; IL-17; Interleukin-17A; IL17A
Species:	Rabbit
Source:	E. coli
Accession:	G1SLF2 (G24-A153)
Gene ID:	100339322
Molecular Weight:	Approximately 15.1 kDa

PROPERTIES

Biological Activity	Measured by its binding ability in a functional ELISA.Immobilized rabbit IL17a at 10 μg/mL (100 μL/well) can bind rat IL17RA-Fc3 ,the EC_{50} of rat IL17RA-Fc3 is 1-30 ng/mL.
Appearance	Solution
Formulation	Supplied as a 0.2 μm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	N/A.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice

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 rhesus macaque IL-17A shares 76.47% amino acid sequence identity with human and 68.63% identity with mouse.

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

[1]. Chen K, et al. Interluekin-17A (IL17A). Gene. 2017 May 30;614:8-14.

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[3]. Cua DJ, et al. Innate IL-17-producing cells: the sentinels of the immune system. Nat Rev Immunol. 2010 Jul;10(7):479-89.

[4]. Wright JF, et al. The human IL-17F/IL-17A heterodimeric cytokine signals through the IL-17RA/IL-17RC receptor complex. J Immunol. 2008 Aug 15;181(4):2799-805.

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