

Active Recombinant Canine interleukin 17A protein, His tagged

Cat. No. IL17A-12C Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant canine IL-17A (29-155 aa), fused to Histag at C-terminus, was expressed in HEK293 cell and purified by using conventional chromatography techniques.
Species	Canine
Source	HEK293
ProteinLength	29-155 aa
Description	This gene is a member of the IL-17 receptor family which includes five members (IL-17RA-E) and the encoded protein is a proinflammatory cytokine produced by activated T cells. IL-17A-mediated downstream pathways induce the production of inflammatory molecules, chemokines, antimicrobial peptides, and remodeling proteins. The encoded protein elicits crucial impacts on host defense, cell trafficking, immune modulation, and tissue repair, with a key role in the induction of innate immune defenses. This cytokine stimulates non-hematopoietic cells and promotes chemokine production thereby attracting myeloid cells to inflammatory sites. This cytokine also regulates the activities of NF-kappaB and mitogen-activated protein kinases and can stimulate the expression of IL6 and cyclooxygenase-2 (PTGS2/COX-2), as well as enhance the production of nitric oxide (NO). IL-17A plays a pivotal role in various infectious diseases, inflammatory and autoimmune disorders, and cancer. High levels of this cytokine are associated with several chronic inflammatory diseases

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including rheumatoid arthritis, psoriasis and multiple sclerosis. The lung damage induced by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is to a large extent, a result of the inflammatory response promoted by cytokines such as IL17A.

Tag	His
Form	Liquid
Bio-activity	The activity is determined by the IL-6 ELISA in a using NIH/3T3 mouse embryonic fibroblast cells. The ED50 range ≤ 10 ng/mL.
Molecular Mass	15.6 kDa (133aa)
AA Sequence	FPQNPGCRNTEDKNFPQHVKNLNLNRNTNSRRPSDYNNRSTSPWNLHRNEDPE RYPSTVIWEAKCRHLGCVNNEGNINYHMNSVPQQEILVLRRESQHCPSFRLEKMLV AVGCTCVTPIVRHVA
Endotoxin	< 1 EU/ μ g by LAL
Purity	> 90% by SDS-PAGE
Applications	SDS-PAGE, Bioactivity
Storage	Can be stored at +2 to +8 centigrade for 1 week. For long term storage, aliquot and store at -20 to -80 centigrade. Avoid repeated freezing and thawing cycles.
Storage Buffer	In Phosphate-Buffered Saline (pH 7.4) containing 20% glycerol.
Concentration	0.5 mg/mL (determined by Absorbance at 280nm)

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Reference

1. Moseley TA., et al, (2003) Cytokine & Growth Factor Reviews. 14: 155-174.
2. Afzali, B. et al. (2007) Clin. Exp. Immunol. 148:32-46.
3. Fossiez, F. et al. (1996) J. Exp. Med. 183:2593-2603.

GENE INFORMATION

Gene Name IL17A interleukin 17A [*Canis lupus familiaris* (dog)]

Official Symbol IL17A

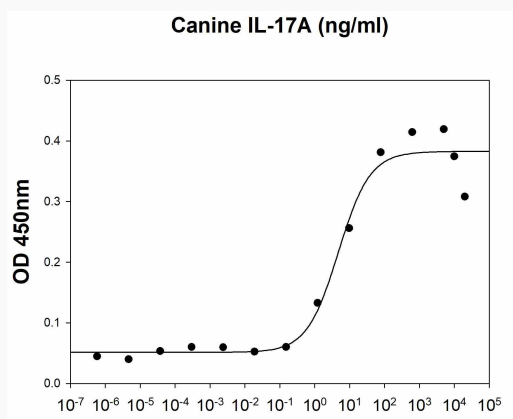
Synonyms IL17A; interleukin 17A; interleukin-17A

Gene ID 481837

mRNA Refseq NM_001165878

Protein Refseq NP_001159350

UniProt ID C6L8D7

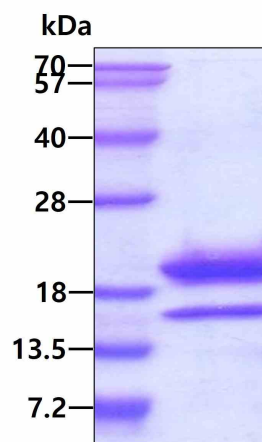
Biological Activity


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Canine IL-17A stimulates IL-6 secretion of the NIH/3T3 mouse embryonic fibroblast cells. The ED50 range ≤ 10 ng/mL.

SDS-PAGE

3 μ g by SDS-PAGE under reducing condition and visualized by coomassie blue stain

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