Rcombinant Human IL12A, His-Fc-tagged

Cat. No. IL12A-165H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	A DNA sequence encoding the p35 subunit of human IL12, termed as IL12A (NP_000873.2) (Met1-Ser219) was fused with the C-terminal His-tagged Fc region of human IgG1 at the C-terminus, constructed the plasmid 1; A DNA sequence encoding the human IL27B, (NP_005746.2) (Met1-Lys229) was fused with the C-terminal flag-tagged Fc region of human IgG1 at the C-terminus, constructed the plasmid 2. The two plasmids were co-expressed and the heterodimer was purified.
Species	Human
Source	Human Cells
ProteinLength	1-219 a.a.
Description	IL12A is a subunit of a cytokine that acts on T and natural killer cells, and has a broad array of biological activities. IL12A, together with IL27B, form a disulfide-linked heterodimer: IL12A&IL27B. IL12A&IL27B is required for the T-cell-independent induction of interferon (IFN)-gamma, and is important for the differentiation of both Th1 and Th2 cells. The responses of lymphocytes to this cytokine are mediated by the activator of transcription protein STAT4. Nitric oxide synthase 2A (NOS2A/NOS2) is found to be required for the signaling process of IL12A&IL27B in innate immunity.
Predicted N Terminal	Arg 23 & Arg 21
Form	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the

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	hardcopy of COA. Please contact us for any concerns or special requirements.
Molecular Mass	The recombinant human IL12A&IL27B comprises 905 (447+458) amino acids and has a calculated molecular mass of 102 (50.7+ 51.3) KDa. The apparent molecular mass of the recombinant human IL12A&IL27B is approximately 60 & 63 KDa respectively in SDS-PAGE under reducing conditions.
Endotoxin	< 1.0 eu per ug of the protein as determined by the lal
Purity	(59.8+33.3) % as determined by SDS-PAGE
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Storage	Store it under sterile conditions at -70℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Reconstitution	A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.

GENE INFORMATION

Gene Name	IL12A interleukin 12A (natural killer cell stimulatory factor 1, cytotoxic lymphocyte maturation factor 1, p35) [Homo sapiens]
Official Symbol	IL12A
Synonyms	IL12A; interleukin 12A (natural killer cell stimulatory factor 1, cytotoxic lymphocyte maturation factor 1, p35); NKSF1; interleukin-12 subunit alpha; CLMF; cytotoxic lymphocyte maturation factor 1; p35; IL 12; subunit p35; IL 12A; IL35 subunit; interleukin 12; interleukin 12 alpha chain; natural killer cell stimulatory factor 1; 35 kD subunit; NF cell stimulatory factor chain 1; NFSK; CLMF p35; IL-12 subunit p35; IL-

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	12, subunit p35; interleukin 12, p35; interleukin-12 alpha chain; NK cell stimulatory factor chain 1; cytotoxic lymphocyte maturation factor 1, p35; cytotoxic lymphocyte maturation factor 35 kDa subunit; natural killer cell stimulatory factor 1, 35 kD subunit; P35; IL-12A;
Gene ID	3592
mRNA Refseq	NM_000882
Protein Refseq	NP_000873
MIM	161560
UniProt ID	P29459
Chromosome Location	3p12-q13.2
Pathway	African trypanosomiasis, organism-specific biosystem; African trypanosomiasis, conserved biosystem; Allograft rejection, organism-specific biosystem; Allograft rejection, conserved biosystem; Amoebiasis, organism-specific biosystem; Amoebiasis, conserved biosystem; Chagas disease (American trypanosomiasis), organism-specific biosystem;
Function	contributes_to cytokine activity; contributes_to cytokine activity; contributes_to growth factor activity; contributes_to growth factor activity; interleukin-12 beta subunit binding; interleukin-12 receptor binding; interleukin-27 binding; protein binding; protein heterodimerization activity;

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