

Interleukin-12 p40 Active Protein | IL12b active protein

Mouse Interleukin-12 p40 Recombinant

CATALOG # AAA14439	HOST CHO cells (Note: Host protein expression may be lot-specific and can be subject to change during production, including bulk orders.)
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PRODUCT SYNONYMS

Interleukin-12 p40; Mouse Interleukin-12 p40 Recombinant; IL12b active protein

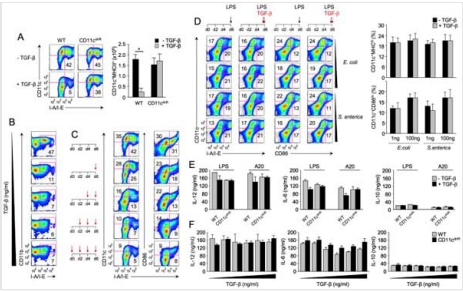
PRODUCT SPECIFICATIONS

Host	CHO cells (Note: Host protein expression may be lot-specific and can be subject to change during production, including bulk orders.)
Purity/Purification	>95%, as determined by SDS-PAGE and HPLC
Form/Format	Recombinant Interleukin-12 was lyophilized from a 0.2 um filtered PBS solution.
Sequence	MCPQKLTISW FAIVLLVSPL MAMWELEKDV YVVEVDWTPD APGETVNLTC DTPEEDDITW TSDQRHGVI SGKTLTITVK EFLDAGQYTC HKGGETLSHS HLLHKKENG IWSTEILKNF KNKTLKCEA PNYSGRFTCS WLVQRNMDLK FNIKSSSSSP DSRVTCGMA SLAEKVTLQ QRDYEKYSVS CQEDVTCPTA EETLPIELAL EARQQNKYEN YSTSFFIRDI IKPDPPKNLQ MKPLKNSQVE VSWEYPDSWS TPHSYFSLKF FVRIQRKKEK MKETEEGCNQ KGAFLVEKTS TEVQCKGGNV CVQAQDRYYN SSCSKWACVP CRVRS
Source	Optimized DNA sequence encoding mouse Interleukin-12 mature chain was over-expressed in CHO cells.
Endotoxin	Endotoxin content was assayed using a LAL gel clot method. Endotoxin level was found to be less than 0.1 ng/ug (1EU/ug).
Biological Activity	The ED(50) determined by the dose-dependent stimulation of IFN-gamma production by murine splenocytes co-stimulated with IL-18 is <.1 ng/ml, corresponding to a specific activity of > x units/mg.
Method	Mouse T Cell Primary Cultures Peripheral lymph node cells were pooled from axillary, inguinal, brachial, and cervical lymph nodes (excluding mesenteric (mes)LN). Where explicitly stated in the figure legends mesLN were collected. After lymphoid organ disaggregation, cells were washed and resuspended in complete media (RPMI-1640, 5%FCS, 2 mM L-gln, 100 U/ml penicillin/streptomycin, and 2.5×10⁻⁵ M 2beta-ME. Anti-CD3 (145-2C11, BD) at 0-1 ug/ml and anti-CD28 (37.51, BD) at 2 ug/ml mAb were coated on plates (1h, 37 degree C, in PBS) and washed twice. In transient TCR stimulations, cells were moved from Ab-coated to fresh wells on d2. aAPC were described previously Functional assays with T cells of healthy donors celltype>T cell activation experiments using the system of celltype>T cell stimulator cells were done as previously described 4/well) were co-cultured with 1×10⁵ celltype>T cells, and following 48 h of stimulation, cell culture supernatant was harvested for cytokine measurement and methyl-3[H]-thymidine was added to the cultures. Expression of membrane-bound anti-CD3 antibody fragments on the T cell stimulator cells was detected via DyLight-649-conjugated goat antibodies to mouse IgG-H+L specific. Isolation of human T cells and monocytes and generation of immature and mature monocyte-derived DC was done as previously described 5 T cells/well were added and cultured for 48 h in the presence of soluble TIM-3 antibodies or isotype control antibodies (both final concentration: 5 ug/ml) as previously described 5/well) were co-cultured with allogeneic immature or mature human DC at the indicated cell numbers for 5 days in presence of the indicated antibodies (final concentration 10 ug/ml). To assess T cell proliferation methyl-3[H]-thymidine (final concentration: 0.025 mCi Elmer/New England Nuclear Corporation,,) was added for the last 18 hours of.<>Methyl-3[H]-thymidine uptake was measured as described
Molecular Function	Cytokine
Reconstitution	A quick spin of the vial followed by reconstitution in distilled water to a concentration not less than 0.1 mg/mL. This solution can then be diluted into other buffers.

Preparation and Storage

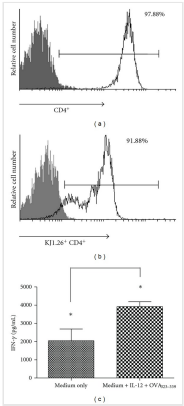
The lyophilized protein is stable for at least years from date of receipt at -20 degree C. Upon reconstitution, this cytokine can be stored in working aliquots at 2 degree -8 degree C for one month, or at -20 degree C for six months, with a carrier protein without detectable loss of activity. Avoid repeated freeze/thaw cycles.

IMAGES



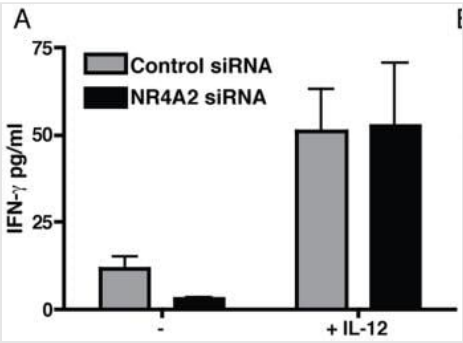
Application Data

TGF- β suppresses DC production but has no effect on DC activation. Bar graphs summarize the average production of IL-12, IL-6, and IL-10 from CD11cDNR (n=24) and wild-type (n=24) cultures.



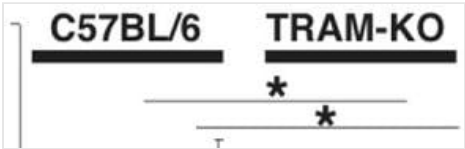
Application Data

KJ1.26+ CD4+ T cell purification and Th1 polarization of DO11.10 cells. Th1 polarization, then, was induced in purified cells, (c) IFN- γ levels were measured in the supernatant of cocultures of DO11.10 CD4+ T cells, and macrophages, IL-12, and OVA323-339 peptide were used.



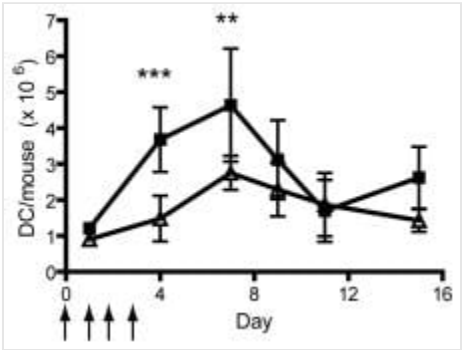
Application Data

NR4A2 knockdown prevents IL-17 secretion but not ROR γ t upregulation. A: IFN- γ production by cells activated in the presence or absence of 10 ng/ml IL-12 after 96 hours of culture.



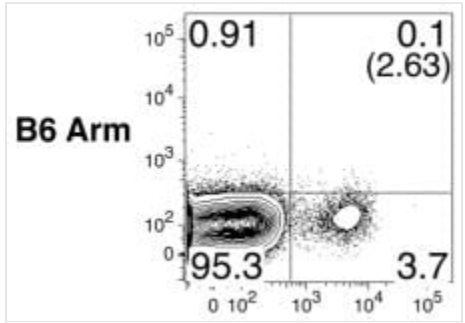
Application Data

The IFN- γ production from IL-18 and/or IL-12 stimulated Th1 cells from TRAM-deficient mice and MyD88 deficient mice. The black bars show the production levels from IL-18 and IL-12 co-stimulated Th1 cells, grey bars show those from IL-18 solely stimulated Th1 cells, and the white bars show those from no secondary stimulated Th1 cells.



Application Data

Increased splenic and hepatic DC numbers following systemic IL-12 treatment. BALB/c mice were treated with 1 μ g/mouse IL-12 (solid square) or vehicle control (VC; open triangle) for 4 consecutive days from day 0, as indicated with arrows, then leukocyte populations analyzed at various days post treatment.



Application Data

Exhausted CD8 T cells do not upregulate CD25 expression following IL-12, IL-18, and/or IL-21 exposure. Representative flow cytometry plots show the expression of CD25 by gated CD8 T cells following acute (B6 Arm), protracted (B6 cl13), and chronic (CD4-/- cl13) LCMV infections in response to a 5.5 hr incubation with or without IL-12, IL-18, and IL-21 in the absence of BFA.

ADDITIONAL INFORMATION

Product Categories/Family for IL12b active protein

Hematopoietins; Recombinant Mouse Cytokines

NCBI AND UNIPROT INFORMATION

NCBI GI #	1170461
NCBI GeneID	16160
UniProt Accession #	P43432; Q16552 IL17_HUMAN; Q99665
Molecular Weight	38,235 Da
NCBI Official Full Name	Interleukin-12 subunit beta
NCBI Official Synonym Full Names	interleukin 12b
NCBI Official Symbol	IL12b
NCBI Official Synonym Symbols	p40; IL-12b; IL12p40; IL-12p40
NCBI Protein Information	interleukin-12 subunit beta
UniProt Protein Name	Interleukin-12 subunit beta
UniProt Gene Name	IL12b
UniProt Synonym Gene Names	IL-12B; CLMF p40

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/cho-cells-active-protein/interleukin-12-p40/14439>