

BACKGROUND:

Interleukin 12 (IL-12) is an inducer of cell-mediated immunity and is produced by dendritic cells, macrophages, and B cells after antigen stimulation. IL-12 functions to promote naïve T cell differentiation into the type 1 T helper cell (Th1) lineage. IL-12 also stimulates the production of interferon gamma (IFNγ) and tumor necrosis factor alpha (TNFα) from T cells and natural killer cells. Mouse IL-12 is active on human and mouse cells.

Recombinant mouse interleukin-12 is a non-glycosylated 507 aa protein consisting of p35: 194 aa and p40: 313. The total molecular mass of 57.6 kDa includes p35: 21.8 kDa and p40: 35.8 kDa.

Cat. No.:
 RP2025

Alternate Names:
 NKSF, CLMF

AA Sequence:

p35:

MRVIPVSGPA	RCLSQSRNLL	KTDDMVKTA
REKLNHYSCT	AEDIDHEDIT	RDQTSTLKTC
LPLELHKNES	CLATRETSST	TRGSLPPQK
TSLMMLLCLGS	IYEDLKMYQT	EFQAINAALQ
NHNHQIILD	KGMLVAIDEL	MQSLNHNGET
LRQKPPVGEA	DPYRVKMKLC	ILLHAFSTRV
VTINRVMGYL	SSA	

p40:

MWELEKDVVY	VEVDWTPDAP	GETVNLTCDT
PEEDDITWTS	DQRHGVIGSG	KTLTITVKEF
LDAGQYTCHK	GGETLSHSHL	LLHKKENGIW
STEILKNFKN	KTFLKCEAPN	YSGRFTCSWL
VQRNMDLKFN	IKSSSSSPDS	RAVTCGMASL
SAEKVTLQQR	DYEKYSVSCQ	EDVTCPTAEE
TLPIELALEA	RQQNKYENYS	TSFFIRDIIK
PDPKLNLMK	PLKNSQVEVS	WEYPDSWSTP
HSYFSLKFFV	RIQRKKEKMK	EETEGCNQKG
AFLVEKTSTE	VQCKGGNVCV	QAQDRYYNSS
CSKWACVPCR	VRS	

TECHNICAL INFO

Source:

HEK 293 cells

Physical Appearance:

Sterile Filtered white lyophilized (freeze-dried) powder.

Formulation:

10 mM sodium phosphate, 50 mM sodium chloride, pH 7.5

Stability:

Lyophilized product is very stable at -20°C. Reconstituted material should be aliquoted and frozen at -20°C. It is recommended that a carrier protein (0.1% HSA or BSA) is added for long term storage.

Reconstitution:

Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at 0.1 mg/mL, which can be further diluted into other aqueous solutions.

Protein Content and Purity determined by:

- UV spectroscopy at 280 nm.
- RP-HPLC calibrated against a known standard.
- Quantitation against a known standard via reducing and non-reducing SDS-PAGE gels.

Endotoxin Level:

Endotoxin level, as measured by LAL analysis, is <0.01ng/ug or <0.1EU/ug.

Biological Activity:

The activity is measured by the dose-dependent mouse primary T cell induced expression of CD25, with Bioactivity Acceptance Criteria ED50 at 20 ng/mL.

