

Active Recombinant Equine IL4

Cat. No. IL4-256E Lot. No. (See product label)

SPECIFICATION

Product Overview	Equine IL-4 was produced in yeast and therefore does not have endotoxin, is naturally folded, and post-translationally modified.
Species	Equine
Source	Yeast
Description	Interleukin-4 (IL-4) induces differentiation of naive helper T cells (Th0 cells) to Th2 cells. Upon activation by IL-4, Th2 cells subsequently produce additional IL-4. IL-4 has many biological roles, including the stimulation of activated B-cell and T-cell proliferation, and the differentiation of CD4+ T-cells into Th2 cells. It is a key regulator in humoral and adaptive immunity. IL-4 induces B-cell class switching to IgE, and up-regulates MHC class II production. Overproduction of IL-4 is associated with allergies.
Form	Lyophilized without carrier protein.
Bio-activity	The biological activity of recombinant equine IL-4 was measured in a cell proliferation assay using the human TF-1 cell line. The ED50 for this effect is typically 40-60 ng/mL.
Molecular Mass	Equine IL-4 has a predicted molecular weight of 12.8 kDa.
AA Sequence	GCKYDITLQE IIKTLNNLTD GKGKNSCMEL TVADAFAGPK NTDGKEICRA AKVLQQLYKR HDRSLIKECL SGLDRNLKGM ANGCCTVNE AKKSTLKDFL ERLKTIMKEK YSKC (114)

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Purity	>95% as visualized by SDS-PAGE analysis.
Applications	The Equine IL-4 protein can be used in cell culture, as an IL-4 ELISA Standard, and as a Western Blot Control.
Storage	Stable for up to twelve months from date of receipt at -20oC. Stable for at least 3 months when stored in working aliquots with a carrier protein at -20oC. Avoid repeated freeze/thaw cycles.
Reconstitution	Reconstitute with sterile phosphate-buffered saline containing at least 0.1% carrier protein.

GENE INFORMATION

Gene Name	IL4 interleukin 4 [<i>Equus caballus</i> (horse)]
Official Symbol	IL4
Synonyms	IL4; interleukin 4; IL-4; BSF-1; interleukin-4; B-cell stimulatory factor 1; lymphocyte stimulatory factor 1
Gene ID	100034225
mRNA Refseq	NM_001082519
Protein Refseq	NP_001075988
UniProt ID	P42202
Chromosome Location	14

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Function

Allograft rejection; Autoimmune thyroid disease; Cytokine-cytokine receptor interaction

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