

Human Recombinant Interleukin-6

Cell Culture Tested

Product Code: CF049

Product Description:

Source: *E.coli*

Molecular Weight: ~21 kDa

Synonyms: Interleukin-6, 26kDa protein, IFN- β , B-Cell

Differentiation Factor (BCDF), BSF-2, HPGF, HSF, MGI-2

Amino Acid Sequence:

MNSFSTSAFG	PVAFSLGLLL	VLPAAFPAPV
PPGEDSKDVA	APHRQPLTSS	ERIDKQIRYI
LDGISALRKE	TCNKSNMCES	SKEALAENNL
NLPKMAEKDG	CFQSGFNEET	CLVKIITGLL
EFEVYLEYLQ	NRFESSEEQA	RAVQMSTKVL
IQFLQKKAKN	LDAITTPDPT	TNASLLTKLQ
AQNQWLQDMT	THLILRSFKE	FLQSSLRALR
QM		

Interleukin-6 (IL-6 is) a pleiotropic cytokine that plays an important role in host defense by regulating immune and inflammatory responses. IL-6 signals through the IL-6 receptor system that consists of two chains, IL-6R α and gp130. IL-6 has wide range of functions in oncogenesis, immune regulation, and hematopoiesis. Independently and also along with other interleukins and interferons, IL-6 differentiation and proliferation of B cells, T cells, and hybridoma cells. It stimulates antibody production, regulates bone metabolism, and induces expression of hepatic acute-phase proteins. IL-6 along IL-3 promotes megakaryocyte development and platelet production. IL-6 is produced by T cells, monocytes, fibroblasts, endothelial cells and keratinocytes. The activity of human IL-6 is perceivable in both human and murine cells. Recombinant Human IL-6 is an ~21 kDa protein expressed in *E.coli*, containing 184 amino acid residues.

CF049 is Human Recombinant Interleukin 6 expressed in *E.coli* and lyophilized from PBS, pH 7.0 (sterile filtered through 0.2 μ filter).

Directions:

1. Centrifuge the vial prior to opening.

Note: Protein pellet may not be visible in the vial because protein is lyophilized without any carrier protein. As a result, small amount protein may get deposited on the inner walls of the vial during lyophilization in form of a thin and invisible film. aentrifugation causes deposition of any protein sticking to the cap or sides to settle at the vial bottom.

2. Surface sterilize using 70% isopropyl alcohol and take it into laminar air flow cabinet.
3. Aseptically reconstitute the lyophilized powder in sterile cell culture grade water to the concentration NLT 0.1 mg/ml.
Note: Do not vortex.
4. Upon reconstitution, it can be stored in a buffer containing a carrier protein and store in working aliquots. Avoid repeated freeze-thaw cycles.

Quality Control:

Appearance

Lyophilized powder

Solubility

Soluble at 0.5 mg/ml in cell culture grade water

Purity (by SDS-PAGE and HPLC analysis)

NLT 97%

Endotoxin Content

NMT 1EU/ μ g

Biological Activity (Determined by the ability to stimulate the proliferation of IL-6 dependent mouse 7TD1 cells)

ED50: NMT 0.1 ng/ml.

Specific activity: NLT 1x10⁷ units/mg.

Storage and Shelf Life:

Shelf life of Human Recombinant Interleukin-6 depends on the storage temperature and the form in which it is stored. Refer the table given below for recommended storage time of different forms of Human Recombinant Interleukin-6 at different storage temperatures.

Product form	Temperature	Storage time
Lyophilized	-30 to -10°C	2 years
Reconstituted (with carrier protein)	2°C to 8°C	1 month
	-30 to -10°C	6 months

Once reconstituted, aliquot the solution into the smaller volumes and freeze for future use. Repeated freezing and thawing of the reconstituted frozen solution should be avoided as it causes denaturation of protein to some extent.

Disclaimer:

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