



Product Datasheet

Product Name	Interleukin-27 Mouse Recombinant
Cata No	CB501304
Source	<i>Escherichia Coli.</i>
Synonyms	Interleukin-30, IL-30, IL-27/p28, p28, Interleukin-27, Interleukin-27/p28, IL-27, Interleukin-27 subunit alpha, IL-27 subunit alpha, IL27-A, Il27, Il27a, IL-27p28.

Description

Interleukin-27 protein is related to IL-12A & is one of the subunits of a heterodimeric cytokine complex. IL-27 interacts with EBV induced gene 3 also called EB13, and forms a complex that drives rapid expansion of CD4 (+) T cells.

IL-27 complex synergizes with IL-12 in order to trigger the cytokine production of IFN-Gamma of CD4 (+) T cells. The biological effect of IL-27 is mediated by class-I cytokine receptor (WSX1/TCRR).

The pro-inflammatory activity of IL-27 is mediated through the growing expression of key molecules involved in the MHC class-I & MHC class-II pathways. Both MHC class-I and MHC-class-II expression are increased in endothelial cells after Interleukin-27 stimulation which suggests that it may play an important role in conferring the immune function on vascular endothelium. IL-27p28 subunit can be induced by IFN-beta and during LPS-induced maturation of dendritic cells in type-I IFN-dependent manner through IFN regulatory factor-1 activation. Interleukin-27 regulates Interleukin-12 responsiveness of CD4+ T cells through Stat1-dependent and -independent mechanisms. IL-17 & IL-23 play an important IL-17 role in inflammation. Interleukin-27 possesses potent anti-angiogenic activity that plays an important role in its antitumor and antimetastatic activities.

EBV induced gene 3 plays a role, independently

from IL-27, in regulating anti-viral or anti-tumoral immune responses. Interleukin-27 is a potent inhibitor of HIV-1 replication in macrophages, CD4+ T cells, peripheral blood mononuclear cells. Interleukin-27 triggers STAT activation and gene transcription.

Interleukin-27 Mouse Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 207 amino acids and having a molecular mass of 23.7 kDa.

The Murine IL-27 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Biological Activity

Mouse p28 biological activity was measured via dose-dependent inhibition of TGF-beta and IL-6-induced IL-17A expression in mouse CD4 splenocytes. 50ng/ml of mouse p28 is capable of inhibiting >25% of IL-17A expression in this assay.

Purity

Greater than 95.0% as determined by:
(a) Analysis by RP-HPLC.
(b) Analysis by SDS-PAGE.

Formulation

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Lyophilized from 10mM Sodium Phosphate (NaP)
buffer pH-7.5.

Reconstitution

It is recommended to reconstitute the lyophilized Interleukin-27 in sterile 18M Ω -cm H₂O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized Interleukin-27 although stable at room temperature for 3 weeks, should be stored

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desiccated below -18°C. Upon reconstitution IL27 should be stored at 4°C between 2-7 days and for future use below -18°C.

Please prevent freeze-thaw cycles.

Sequence

MFP TDPLSLQELR REFTVSLYLA RKLLSEVQGY
VHSFAESRLP GVNLDLLPLG YHLPNVSLTF
QAWHHLSDSE RLCFLATTLR PFPAMLGGLG
TQGTWTSSER EQLWAMRLDL RDLHRHLRFQ
VLAAGFKCSK EEEDKEEEEE EEEEEKLP
GALGGPNQVS SQVSWPQLLY TYQLLHSELE
VLSRAVRDLL LLSLPRRPGS AWDS.

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