

Active Recombinant Human GM-CSF/IL-3 (PIXY321) Fusion Protein

Cat. No. CSF3&IL3-5H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human GM-CSF/IL-3 (PIXY321) Fusion Protein, expressed in E. coli.
Species	Human
Source	E.coli
Description	Synergism of IL3 together with GMCSF causes a rapid rise in neutrophils due to GMCSF and a slower rise in platelets due to IL3 which has strong stimulated effect on hematopoietic cells. The analog of GMCSF/IL3 is PIXY321. Results indicate that PIXY321 can stimulate multilineage hematopoiesis in vivo and enhance neutrophil and platelet recovery following chemotherapy and bone marrow transplantation (BMT). These results suggest that PIXY321 elicits the biological effects of both its component cytokines and represents a novel means of delivering two independent but interactive cytokines in combination.
Form	The protein was lyophilized after extensive dialysis against 10mM PBS, pH= 7.4±0.1 and 0.1% BSA.
Bio-activity	The ED50 as determined by the dose-dependant stimulation of the proliferation of human TF-1 cells (human erythroleukemic indicator cell line) is < 0.2 ng/ml, corresponding to a specific activity of 5 x10 ⁶
Molecular Mass	GMCSF/IL3 fusion protein Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain having a Mw of 30kDa. PIXY321 is purified by

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	proprietary chromatographic techniques.
Purity	Greater than 96.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
Usage	FOR RESEARCH USE ONLY
Quality Control Test	Lyophilized PIXY321 although stable at room temperature for 3 weeks, should be stored desiccated below -18 centigrade. Upon reconstitution PIXY321 should be stored at 4 centigrade between 2-7 days and for future use below -18 centigrade.
Reconstitution	It is recommended to reconstitute the lyophilized PIXY321 in sterile 18MΩ-cm H ₂ O not less than 100µg/ml, which can then be further diluted to other aqueous solution.
Warning	Avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name	CSF3 colony stimulating factor 3 (granulocyte) [Homo sapiens]; IL3 interleukin 3 (colony-stimulating factor, multiple) [Homo sapiens]
Official Symbol	CSF3; IL3
Synonyms	CSF3; colony stimulating factor 3 (granulocyte); C17orf33, chromosome 17 open reading frame 33, G CSF, GCSF; granulocyte colony-stimulating factor; filgrastim; granulocyte colony stimulating factor; lenograstim; MGC45931; pluripoiectin; GCSF; CSF3OS; C17orf33; IL3; interleukin 3 (colony-stimulating factor, multiple); interleukin-3; hematopoietic growth factor; IL 3; mast cell growth factor; MCGF; MGC79398; MGC79399; MULTI CSF; multilineage colony stimulating factor; P cell stimulating factor; mast-cell growth factor; P-cell stimulating factor; P-cell-stimulating factor; multilineage-colony-stimulating factor; multipotential colony-stimulating factor; IL-3;

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	MULTI-CSF;
Gene ID	1440; 3562
mRNA Refseq	NM_000759; NM_000588
Protein Refseq	NP_000750; NP_000579
MIM	138970; 147740
UniProt ID	P09919; P08700
Chromosome Location	17q11.2-q12; 5q23-q31
Pathway	Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem; Cytokines and Inflammatory Response, organism-specific biosystem; Hematopoietic cell lineage, organism-specific biosystem; Hematopoietic cell lineage, conserved biosystem; Jak-STAT signaling pathway, organism-specific biosystem; Jak-STAT signaling pathway, conserved biosystem;
Function	cytokine activity; cytokine activity; enzyme binding; granulocyte colony-stimulating factor receptor binding; growth factor activity; cytokine activity; growth factor activity; interleukin-3 receptor binding;