Technical Data Sheet

Flogen® Recombinant Human Interleukin-9(rHuIL-9)

Catalog Number:	PGR0101-009
Source:	*Escherichia coli.*
Molecular Weight:	Approximately 14.1 kDa, a single non-glycosylated polypeptide chain containing 126 amino acids.
Quantity:	2μg/10μg/1000μg
AA Sequence:	QGCPTLAGIL DINFLINKMQ EDPASKCHCS ANVTSCLCLG IPSDNCTRPC FSERLSQMTN TTMQTRYPLI FSRVKKSVEV LKNNKCPYFS CEQPCNQTTA GNALTFLKSL LEIFQKEKMR GMRGKI
Purity:	> 95 % by SDS-PAGE and HPLC analyses.
Biological Activity:	Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using human MO7e cells is less than 0.2 ng/ml, corresponding to a specific activity of > 5.0 × 106 IU/mg.
Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.4.
Endotoxin:	Less than 1EU/μg of rHuIL-9 as determined by LAL method.
Reconstitution:	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
Storage:	This lyophilized preparation is stable at 2-8 °C, but should be kept at -20 °C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 °C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 °C to -70 °C. **Avoid repeated freeze/thaw cycles.**
Usage:	This material is for research, laboratory or further evaluation purposes. **NOT FOR HUMAN USE**.

Human Interleukin-9

Interleukin-9 (IL-9) is encoded by the IL9 gene and produced by T-cells and specifically by CD4+ helper cells. IL-9 was originally identified as a cytokine found in the conditioned medium of a human T cell leukemia virus type I (HTLVI) transformed T cell line. It functions through the IL-9 receptor, which activates different signal transducer and activator (STAT) proteins and thus connects this cytokine to various biological processes. IL-9 can support the growth of IL-2 independent and IL- 4 independent helper T-cells. Human IL-9 has approximately 56 % amino acid sequence identity with murine IL-9. The gene encoding this cytokine has been identified as a candidate gene for asthma. Genetic studies on a mouse model of asthma demonstrated that this cytokine is a determining factor in the pathogenesis of bronchial hyperresponsiveness.