

Flogen[®] Recombinant Rat Interleukin-9(rRtIL-9)

Catalog Number:	PGR0141-009
Source:	<i>Escherichia coli</i> .
Molecular Weight:	Approximately 14.3 kDa, a single non-glycosylated polypeptide chain containing 127 amino acids.
Quantity:	2µg/10µg/1000µg
AA Sequence:	MQRCSTSWG I QHTSYLIENL KDDPSSK CSC SANVT SCLCL PIPSDDCTTP CFQEGMSQVT NATQQSKFSP FFFRVKRIVE TLKSNKCQFF SCEKPCNQTT AGNTVSFLKS LLKTFQKTEV QVQRSRA
Purity:	> 97 % 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 murine TS1 cells is less than 10 ng/ml, corresponding to a specific activity of > 1.0 × 10 ⁵ 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 0.1 EU/µg of rRtIL-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:	For research, laboratory or further evaluation purposes. NOT FOR HUMAN USE.

Rat 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 (HTLV-I) 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. Rat IL-9 has approximately 73 % 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.