

## HumanKine® IL-5 (Recombinant Human)



Animal Component-Free

Human cell expressed

Tag-Free

Endotoxin Free

### Product Description

IL-5 is a 4- $\alpha$ -helix, pleiotropic cytokine that regulates the activities of B cells, eosinophils, and basophils. It is produced mostly by CD4+ T cells, eosinophils, and basophils, and signals through its specific receptor (IL-5R) on target cells to activate downstream JAK/STAT, Btk, and Ras/ERK pathways. Due to its pleiotropic effects, IL-5 plays a role in both innate and adaptive immune responses. It is a strong promoter of eosinophil differentiation, migration, maturation, and survival. Additionally, IL-5 is also capable of stimulating activated B cells to differentiate into antibody-secreting cells. Elevated IL-5 levels are strongly correlated with eosinophilia, which is a hallmark feature of allergy, asthma, and hypersensitivity (PMID: 21986312, 22174445, 19819937, 16895557)

#### Alternative Names

IL5, IL 5, IL-5T-cell replacing factor, interleukin 5, EDF, Eo-CSF, Eosinophil differentiation factor, BCDF mu, B-cell differentiation factor I, BCGFI, TRF, TRFB cell differentiation factor

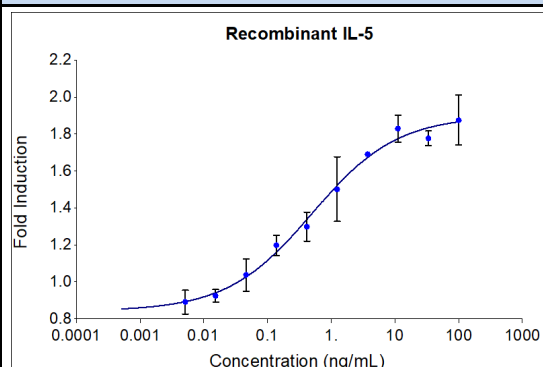
#### Source

Human Embryonic Kidney cells (HEK293). HEK293-derived IL-5 protein

### Specifications

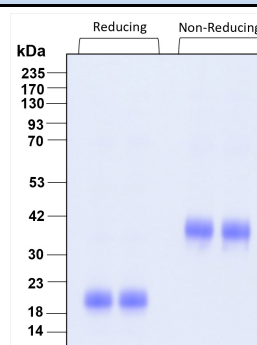
Test	Method	Specification
Activity	Dose-dependent stimulation of the proliferation of human TF-1 cells (human erythroleukemic indicator cell line)	0.2-0.9 ng/mL EC50
Molecular Mass	SDS-PAGE	19 to 21 kDa reduced, 35 to 40 kDa non-reduced, disulfide linked homodimer, glycosylated
Purity	SDS-PAGE	>95%
Endotoxin	LAL	<0.1 EU/ $\mu$ g

### Activity Data



Recombinant human IL-5 (HZ-1324) stimulates dose-dependent proliferation of the TF-1 human erythroleukemic indicator cell line. Cell number was quantitatively assessed by PrestoBlue® cell viability reagent. TF-1 cells were treated with increasing concentrations of recombinant IL-5 for 120 hours. The EC50 was determined using a 4-parameter non-linear

### SDS-PAGE



Preparation	
Shipping Temperature	ambient temperature
Formulation	1x PBS, See Certificate of Analysis for details
Reconstitution	Briefly centrifuge the vial before opening. It is recommended to reconstitute the protein in sterile 1xPBS pH 7.4 containing 0.1% endotoxin-free recombinant human serum albumin (HSA).

Stability and Storage	Product Form	Temperature Conditions	Storage Time (From Date of Receipt)
	Lyophilized	-20°C to -80°C	Until Expiry Date
	Lyophilized	Room Temperature	2 weeks
	Reconstituted as per CofA	-20°C to -80°C	6 months
	Reconstituted as per CofA	4°C	1 week
Avoid repeated freeze-thaw cycles.			

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