# Epoto Biotech

# Recombinant Human IL5, Tag Free

南京艾璞拓生物科技有限公司

Catalog Number: HF-1005

SynonymsHuman IL5; hIL-5, recombinant IL5, interleukin 5, EDFAccession #P05113SourceHuman embryonic kidney cell, HEK293-derived human IL5 proteinIe20-Ser134Ie20-Ser134Predicted Moleucular web13 kDa (Monomer)Form/StructureJakDa (Monomer)Officient is solutionOfficient is solution other aqueous buffers. Centrifuge the vial prior to opening.Storage and StabilityAvoid reze-thaw cycles. It is recommended that the protein be aliquoted for optimal storage.12 montts rom date of receipt, -20 to -70 °C as supplied.ShippingShipping with dry ice
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Source   Human embryonic kidney cell, HEK293-derived human IL5 protein     Ile20-Ser134     Predicted Moleucular with the protein solution     Form/Structure   13 kDa (Monomer)     Components and Stability   Dimer in solution     Formulation   Solution protein.     Formulation   Solution protein.     Storage and Stability   Avoid repeated freeze-thaw cycles.     It is recommended that the protein be aliquoted for optimal storage.   12 months from date of receipt, -20 to -70 °C as supplied.     Shipping   Shipping with dry ice
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Quality
Purity > 95%, determined by SDS-PAGE.
Endotoxin Level <0.010 EU per 1 ug of the protein by the LAL method.
Activity Measured in a cell proliferation assay using TF-1 human erythroleukemic cells.
The EC50 for this effect is 0.04–0.2 ng/mL.
SDS-PAGE Gel filtration Bioactivity
kDa NR R hIL5 EC50 (pg/mL)
180 130 100 5000- 5000-
2 ug/lane protein was resolved
40 with SDS-PAGE under
35 non-reducing (NR) and
25 reducing (R) conditions and 2000 visualized by Coomassie Blue
staining.
15 0 4 8 12 16 20 24 0 500 1000 1500 2000 2500 (pg/mL)
Volume (mL) Recombinant human IL5 (Catalog # HF-1005)
Size-exclusion chromatography of recombinant stimulates cell proliferation of the TF-1 human human II 5 protein (280 nm absorbance)

#### Background

**Interleukin 5 (IL5)**, is a secreted glycoprotein that belongs to the alpha –helical group of cytokines (1 – 3). IL5 is present as a covalently linked antiparallel dimer (4, 5). Mature human IL–5 shares 70%, 70%, 62%, 71%, 70% and 66%, aa sequence identity with mouse, rat, canine, equine, feline and porcine IL5, respectively and shows cross–reactivity with mouse IL5. IL5 is primarily produced by CD4+ Th2 cells, but also by activated eosinophils, mast cells, EBV–transformed B cells, Reed–Sternberg cells in Hodgkin' s disease, and IL2–stimulated invariant natural killer T cells (7, 8). IL5 increases production and mobilization of eosinophils and CD34+ progenitors from the bone marrow and causes maturation of eosinophil precursors

outside the bone marrow (1, 6, 9, 10). The receptor for human IL5, mainly expressed by eosinophils, but also found on basophils and mast cells, consists of a unique ligand-binding subunit (IL5R alpha) and a shared signal-transducing subunit, beta c (3, 6, 11). IL5R alpha first binds IL5 at low affinity, then associates with preformed beta c dimers, forming a high-affinity receptor (12). IL5 also binds proteoglycans, potentially enhancing its activity (13). Soluble forms of IL5R alpha antagonize IL5 and can be found in vivo (10, 14).

## Reference

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