



Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

Store at -20C
#5924

Human Interleukin-5 (hIL-5)

For Research Use Only. Not for Use in Diagnostic Procedures.

MW (kDa):	UniProt ID:	Entrez-Gene Id:
14-21	#P05113	3567

Background

IL-5 is a pleiotrophic cytokine that is predominantly produced by TH2 T cells but can also be expressed by activated eosinophils, mast cells, NK cells, and iNKT cells (1-4). Both human and mouse IL-5 are glycosylated disulfide-linked homodimers (1). The IL-5 receptor is a heterodimer that consists of a high affinity IL-5 binding α chain and the common β chain, which is shared by GM-CSF and IL-3 receptors, for signal transduction (1,2). Soluble IL-5Ra binds with high affinity to IL-5, thereby inhibiting IL-5 activity (1). IL-5-mediated signaling can activate the Erk1/2, Jak2, and Stat5 signaling pathways (1,2). In mice, IL-5 is important for the differentiation of antibody secreting cells from activated B cells (2). IL-5 induces eosinophil activation, proliferation, and differentiation in both mice and humans (2,3).

Endotoxin

Less than 0.01 ng endotoxin/1 μ g hIL-5.

Purity

>98% as determined by SDS-PAGE of 6 μ g reduced (+) and non-reduced (-) recombinant hIL-5. All lots are greater than 98% pure

Source / Purification

Recombinant human IL-5 (hIL-5) Ile20-Ser134 (Accession #NP_000870) was expressed in human 293 cells at Cell Signaling Technology.

Bioactivity

The activity of hIL-5 was assessed by quantification of phospho-p44/42 MAPK (Erk1/2) in butyric acid differentiated HL-60 Clone 15 cells. The observed ED₅₀ values are between 0.50-1 ng/ml.

Background References

1. Takatsu, K. (2011) *Proc Jpn Acad Ser B Phys Biol Sci* 87, 463-85.
2. Wang, W. et al. (2011) *PLoS One* 6, e17766.
3. Kouro, T. and Takatsu, K. (2009) *Int Immunol* 21, 1303-9.
4. Chuang, Y.H. et al. (2011) *J Immunol* 186, 4687-92.

Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

PathScan is a registered trademark of Cell Signaling Technology, Inc.

All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.

Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.

