

Product Information

Contents: Carrier-Free Recombinant Mouse IL-31

Catalog Number: 34-8531

Sizes: 100 ug, 500 ug

Formulation: Sterile liquid; 40% Acetonitrile, 0.1% TFA, 0.22 µm filtered.

Storage Conditions: For greatest stability, keep concentration of primary stock at or above 10 µg/ml. For long term storage, aliquot into polypropylene vials (volumes of 20 µl or greater) and store at or below -80°C. Avoid repeated freeze/thaw cycles.

Handling Conditions: For best recovery, always quick-spin vial prior to opening. For dilution of current stock, always include carrier protein (1% BSA or 10% FBS) in the buffered saline diluent.

Source: *E. coli*-expressed protein consisting of amino acids Thr24-Cys163 of mature mouse IL-31 (accession # XM_132344).

Molecular Mass: 18.3 kDa

Purity: Greater than 98% as determined by SDS-PAGE

Endotoxin Level: Less than 0.01 ng/ug cytokine as determined by the LAL assay.

Bioactivity: Testing in progress.

Available Formats of This Product				
Cat. No.	Format	Excite (nm)	Emit (nm)	Reported Applications
14-8531	Mouse IL-31 Recombinant Protein	N/A	N/A	BA
34-8531	Mouse IL-31 Recombinant Protein Carrier-Free	N/A	N/A	BA

Flow Cytometry Product Notes:

Test Sizes: To accommodate multicolor flow cytometry, eBioscience is in the process of reducing test size volumes from 20 µl to 5 µl. Please check your antibody vial for the recommended test size.

Fluorochrome Replacements: eBioscience is in the process of replacing all Pacific Blue® and APC-Alexa Fluor® 750 conjugated products with eFluor™ 450 and APC-eFluor™ 780 conjugated products, respectively.

Custom Product Requests

Need a custom product? Download the Custom Product Request Form and submit completed form to customs@ebioscience.com.

Questions? Please consult our answers to frequently asked questions at <http://www.ebioscience.com/faq>.

Description

Interleukin-31 (IL-31) is a member of the gp130/IL-6 family of cytokines that is produced predominantly, but not exclusively, by activated Th2 cells. It binds to a heterodimeric receptor complex consisting of IL-31RA (GPL, GLM-R), a gp130-like molecule, and oncostatin M receptor (OSMR). This receptor complex is expressed constitutively on keratinocytes and epithelial cells and can be upregulated on monocytes by IFN-γ or LPS. IL-31 signaling activates the Jak/STAT signaling pathway, including STAT1, STAT3, and STAT5, as well as the PI3 kinase/AKT and MAP kinase pathways. Mouse IL-31 shares 31% amino acid identity with human IL-31 but it does not bind to the human IL-31 receptor.

Applications Reported

For research use only, not for diagnostic or therapeutic use.

Applications Tested

Currently there is no reliable bioassay available for the recombinant mouse IL-31.

References

Zhang Q, Putheti P, Zhou Q, Liu Q, Gao W. Structures and biological functions of IL-31 and IL-31 receptors. *Cytokine Growth Factor Rev.* 2008 Oct-Dec;19(5-6):347-56.

Chattopadhyay S, Tracy E, Liang P, Robledo O, Rose-John S, Baumann H. Interleukin-31 and oncostatin-M mediate distinct signaling reactions and response patterns in lung epithelial cells. *J Biol Chem*. 2007 Feb 2;282(5):3014-26.

Neis MM, Peters B, Dreuw A, Wenzel J, Bieber T, Mauch C, Krieg T, Stanzel S, Heinrich PC, Merk HF, Bosio A, Baron JM, Hermanns HM. Enhanced expression levels of IL-31 correlate with IL-4 and IL-13 in atopic and allergic contact dermatitis. *J Allergy Clin Immunol*. 2006 Oct;118(4):930-7.

Dillon SR, Sprecher C, Hammond A, Bilsborough J, Rosenfeld-Franklin M, Presnell SR, Haugen HS, Maurer M, Harder B, Johnston J, Bort S, Mudri S, Kuijper JL, Bukowski T, Shea P, Dong DL, Dasovich M, Grant FJ, Lockwood L, Levin SD, LeCiel C, Waggie K, Day H, Topouzis S, Kramer J, Kuestner R, Chen Z, Foster D, Parrish-Novak J, Gross JA. Interleukin 31, a cytokine produced by activated T cells, induces dermatitis in mice. *Nat Immunol*. 2004 Jul;5(7):752-60.

Related Products

Cat. 14-8310 Recombinant Human IL-31 (Interleukin-31, IL31)

Cat. 34-8310 Carrier-Free Recombinant Human IL-31 (Interleukin-31, IL31)

Cat. 14-8531 Recombinant Mouse IL-31 (Interleukin 31)

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