

Cytokines

Mouse Recombinant IL-19



Scientists Helping Scientists™ | WWW.STEMCELL.COM

TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713

INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM

FOR GLOBAL CONTACT DETAILS VISIT OUR WEBSITE

Catalog # 78207
78207.1

Interleukin 19

10 µg
50 µg

Product Description

Interleukin 19 (IL-19) is a member of the IL-10 cytokine family and is produced by keratinocytes, B cells, and monocytes (Romer et al.; Wolk et al.). Expression of IL-19 can be induced by granulocyte-macrophage colony-stimulating factor (GM-CSF) or lipopolysaccharide (LPS; Gallagher et al.). IL-19 is considered to be a proinflammatory cytokine, as it upregulates IL-6 and tumor necrosis factor alpha (TNF-α; Liao et al. 2002). IL-19 binds the IL-20 receptor complex (IL-20R) which comprises IL-20R alpha and IL-20R beta to activate the STAT3 pathway (Dumoutier et al.). IL-19 also induces T-helper cell differentiation towards a Th2 response, resulting in the production of IL-10 and additional IL-19 (Liao et al. 2002; Liao et al. 2004). IL-19 has been implicated in aging, vascular disease, Type I diabetes, and rheumatoid arthritis.

Product Information

Alternative Names: IL-10C, Interleukin-19, MDA1, Melanoma differentiation-associated protein-like protein, NG.1, ZMDA1
Accession Number: Q8CJ70
Amino Acid Sequence: MLRRCLISVD MRLIEKSFHE IKRAMQTKDT FKNVTILSLE NLRSIKPGDV CCMTNLLTF YRDRVFQDHQ
ERSLEVLRRRI SSIANSFLCV QKSLERCQVH RQCNCSEAT NATRIIHDNY NQLEVSSAAL KSLGELNILL
AWIDRNHLET PAA
Predicted Molecular Mass: 17.7 kDa
Species: Mouse
Cross Reactivity: Reported to be species-specific
Formulation: Lyophilized after dialysis against acetic acid.
Source: E. coli

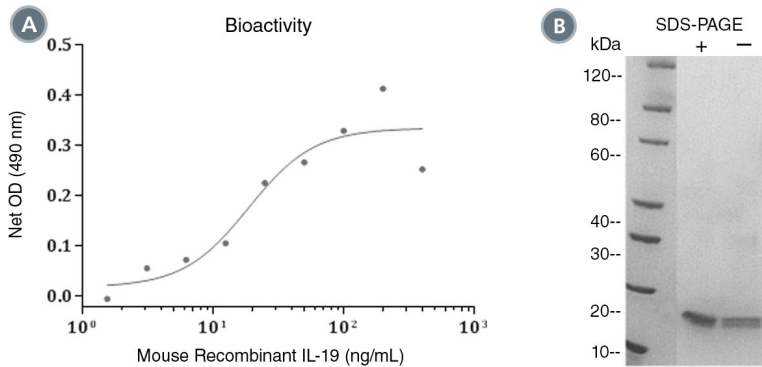
Specifications

Activity: The specific activity is $\geq 2.0 \times 10^4$ units/mg ($EC_{50} \leq 50$ ng/mL) as determined by a cell proliferation assay using MCF-7 cells.
Purity: $\geq 95\%$
Endotoxin Level: Measured by kinetic Limulus amoebocyte lysate (LAL) analysis and is ≤ 0.2 EU/µg protein.

Preparation and Storage

Storage: Store at -80°C.
Stability: Stable as supplied for 12 months from date of receipt.
Preparation: Centrifuge vial before opening. Reconstitute the product in 50 mM acetic acid to at least 0.05 mg/mL by pipetting the solution down the sides of the vial. Do not vortex. As a general guide, do not store at 2 - 8°C for more than 2 weeks or at -20°C for more than 3 months. Avoid repeated freeze-thaw cycles.

Data



(A) The biological activity of Mouse Recombinant IL-19 was tested by its ability to promote the proliferation of MCF-7 cells. Cell proliferation was measured using a fluorometric assay method. The EC₅₀ is defined as the effective concentration of the cytokine at which cell proliferation is at 50% of maximum. The EC₅₀ in the example above is less than 50 ng/mL.

(B) 2 µg of Mouse Recombinant IL-19 was resolved with SDS-PAGE under reducing (+) and non-reducing (-) conditions and visualized by Coomassie Blue staining. Mouse Recombinant IL-19 has a predicted molecular mass of 17.7 kDa.

Related Products

For a complete list of cytokines, as well as related products available from STEMCELL Technologies, visit www.stemcell.com/cytokines or contact us at techsupport@stemcell.com.

References

- Dumoutier L et al. (2001) Cutting edge: STAT activation by IL-19, IL-20 and mda-7 through IL-20 receptor complexes of two types. *J Immunol* 167(7): 3545–9.
- Gallagher G et al. (2000) Cloning, expression and initial characterization of interleukin-19 (IL-19), a novel homologue of human interleukin-10 (IL-10). *Genes Immun* 1(7): 442–50.
- Liao SC et al. (2004) IL-19 induced Th2 cytokines and was up-regulated in asthma patients. *J Immunol* 173(11): 6712–8.
- Liao YC et al. (2002) IL-19 induces production of IL-6 and TNF-alpha and results in cell apoptosis through TNF-alpha. *J Immunol* 169(8): 4288–97.
- Rømer J et al. (2003) Epidermal overexpression of interleukin-19 and -20 mRNA in psoriatic skin disappears after short-term treatment with cyclosporine a or calcipotriol. *J Invest Dermatol* 121(6): 1306–11.
- Wolk K et al. (2002) Cutting edge: immune cells as sources and targets of the IL-10 family members? *J Immunol* 168(11): 5397–402.

STEMCELL TECHNOLOGIES INC.'S QUALITY MANAGEMENT SYSTEM IS CERTIFIED TO ISO 13485. PRODUCTS ARE FOR RESEARCH USE ONLY AND NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES UNLESS OTHERWISE STATED.

Copyright © 2017 by STEMCELL Technologies Inc. All rights reserved including graphics and images. STEMCELL Technologies & Design, STEMCELL Shield Design, and Scientists Helping Scientists are trademarks of STEMCELL Technologies Canada Inc. All other trademarks are the property of their respective holders. While STEMCELL has made all reasonable efforts to ensure that the information provided by STEMCELL and its suppliers is correct, it makes no warranties or representations as to the accuracy or completeness of such information.