

Technical Data Sheet

Recombinant Rat IL-10

Product Information

Material Number:	555113
Size:	5 µg
Concentration:	100 µg/ml
Storage Buffer:	Frozen aqueous buffered solution containing BSA.

Description

Interleukin-10 (IL-10), (aka Cytokine Synthesis Inhibitory Factor CSIF), is an 18.5 kD protein that shares over 80% sequence homology with the Epstein-Barr Virus protein BCRF1. The reported biological activities of IL-10, which may be interrelated, include inhibition of macrophage-mediated cytokine synthesis, suppression of the delayed type hypersensitivity response, and stimulation of the Th2 cell response, which results in elevated antibody production. The net effect of IL-10 action appears to be the inhibition of proinflammatory T cell mediated immunity.

Purity and Formulation: The rat IL-10 was found to be > 95% pure by SDS-PAGE analysis, and an absorbance assay based on the Beer-Lambert Law. The endotoxin level is ≤ 0.1 ng per µg of IL-10. Recombinant rat IL-10 is supplied as a frozen liquid comprised of 0.22 µm sterile-filtered Dulbecco's PBS pH 7.2 and 1.0 mg/ml BSA carrier protein.

Preparation and Storage

This preparation contains no preservatives, thus it should be handled under aseptic conditions.

Store product at -80°C prior to use or for long term storage of stock solutions.

Rapidly thaw and quick-spin product prior to use.

Avoid multiple freeze-thaws of product.

Upon initial thawing the product should be aliquoted into polypropylene microtubes and frozen at -80°C for future use.

Alternatively, the product can be diluted in sterile neutral buffer containing not less than 0.5 - 1.0 mg/ml carrier protein* such as human or bovine serum albumin, aliquoted and stored at -80°C. For use as an ELISA standard we recommend carrier-protein concentrations of 5 - 10 mg/ml. Failure to add carrier protein or store at indicated temperatures may result in a loss of activity.

Application Notes

Application

ELISA Standard	Routinely Tested
Intracellular block/flow cytometry	Tested During Development

Recommended Assay Procedure:

ELISA Standard: The recombinant rat IL-10 (Cat. No. 555113) is useful as a quantitative standard for a sandwich ELISA for measuring rat IL-10 protein levels. Purified A5-7 antibody (Cat. No. 555083) is recommended to use as the capture antibody and can be paired with biotinylated A5-6 antibody (Cat. No. 555084), with recombinant rat IL-10 as the standard. To obtain linear standard curves, doubling dilutions of rat IL-10 ranging from ~2,000 to 5 pg/ml are recommended for inclusion in each ELISA plate. For specific methodology, please see the chapter on ELISA in the Immune Function Handbook, which is posted on our web site, www.bdbiosciences.com.

Immunofluorescent Staining and Flow Cytometric Analysis: The recombinant rat IL-10 can be used as a blocking control to demonstrate specificity of IL-10 staining by the PE-A5-4 antibody, (Cat. No. 555088). The intracellular cytokine staining technique and use of blocking controls are described in detail by C. Prussin and D. Metcalfe. For specific methodology, please visit the protocols sections or the chapter on intracellular staining in the Immune Function Handbook, both of which are posted on our web site, www.bdbiosciences.com.

*Carrier proteins should be pre-screened for possible effects in an appropriate experimental system. Carrier proteins may effect experimental results due to toxicity, high endotoxin levels or possible blocking activity.

Unit is defined as the amount of material required to stimulate a half-maximal response at cytokine saturation.

BD Biosciences

bdbiosciences.com

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	888.259.0187	32.53.720.550	0120.8555.90	65.6861.0633	55.11.5185.9995

For country-specific contact information, visit bdbiosciences.com/how_to_order/

Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton Dickinson and Company is strictly prohibited.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale.

BD, BD Logo and all other trademarks are the property of Becton, Dickinson and Company. ©2008 BD



Suggested Companion Products

<u>Catalog Number</u>	<u>Name</u>	<u>Size</u>	<u>Clone</u>
555083	Purified Mouse Anti-Rat IL-10	0.5 mg	A5-7
555084	Biotin Mouse Anti-Rat IL-10	0.5 mg	A5-6
555134	Rat IL-10 ELISA Set	20 tests	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Feng L, Tang WW, Chang JC, Wilson CB. Molecular cloning of rat cytokine synthesis inhibitory factor (IL-10) cDNA and expression in spleen and macrophages. *Biochem Biophys Res Commun.* 1993; 192(2):452-458.(Biology)

Fiorentino DF, Bond MW, Mosmann TR. Two types of mouse T helper cell. IV. Th2 clones secrete a factor that inhibits cytokine production by Th1 clones. *J Exp Med.* 1989; 170(6):2081-2095.(Biology)

Prussin C, Metcalfe DD. Detection of intracytoplasmic cytokine using flow cytometry and directly conjugated anti-cytokine antibodies. *J Immunol Methods.* 1995; 188(1):117-128.(Methodology: IC/FCM Block)