

## Technical Data Sheet

## Recombinant Mouse IL-10

## Product Information

Material Number:	550070
Size:	10 µg
Concentration:	200 µg/ml
Storage Buffer:	Frozen aqueous buffered solution containing BSA and glycerol.

## Description

Interleukin-10 (IL-10), originally known as 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 pro-inflammatory T cell mediated immunity. Mouse IL-10 is an 18.8 kD protein containing 160 amino acid residues.

## Formulation and Purity

The recombinant mouse IL-10 is supplied as a frozen liquid comprised of 0.22 µm sterile-filtered aqueous buffered solution and containing 4 mg/mL biotechnology grade, low endotoxin bovine serum albumin, with no preservatives. Mouse IL-10 was found to be > 95% pure by SDS-PAGE analysis, and an absorbance assay based on the Beers-Lambert law. The endotoxin level is ≤0.1 ng per µg of mouse IL-10 as measured in chromogenic LAL assay.

## 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 0.5-10 mg/mL carrier protein, such as human or bovine albumin, aliquoted and stored at -80°C. For in vitro biological assays, a carrier-protein concentration of 1-2 mg/mL is suggested. For use as an ELISA standard, a carrier-protein concentration of 5-10 mg/mL is suggested.

Note: Failure to add carrier protein or store at indicated temperatures may result in a loss of activity. This product should not be diluted to less than 50 µg/mL for long-term storage. 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.

## Application Notes

## Application

Bioassay	Routinely Tested
ELISA Standard	Routinely Tested

## Recommended Assay Procedure:

**Biological Activity:** D36 indicator cells were co-stimulated with recombinant mouse IL-4 (Cat No. 550067) at 50 pg/mL to promote proliferation and were incubated for 24 hours prior to being pulsed with MTT (3-(4,5-Dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide).

Specific Activity: 1.0 - 6.6 x 10<sup>5</sup> ng/mL

ED50: 0.5 - 100 ng/mL

**ELISA Standard:** Mouse IL-10 is useful as a quantitative standard for measuring mouse IL-10 protein levels in an IL-10 specific sandwich ELISA with the purified JES5-2A5 antibody (Cat. No. 551215) as a capture antibody and the biotinylated clone SXC-1 (Cat. No. 554423) or JES-16E3 (Cat. No. 554465) as the detection antibody. To obtain linear standard curves, doubling dilutions of the mouse IL-10 standard from ~2,000 to 15 pg/mL should be included with each ELISA plate. This ELISA pair is recommended primarily for measuring cytokine from experimental cell culture systems, not for assay of serum or plasma samples. For measuring IL-10 in serum or plasma, the BD OptEIA™ Mouse IL-10 Set (Cat. No. 555252) is specially formulated and recommended.

## Suggested Companion Products

Catalog Number	Name	Size	Clone
550067	Recombinant Mouse IL-4	10 µg	(none)
551215	Purified Rat Anti-Mouse IL-10	1.0 mg	JES5-2A5

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554423	Biotin Rat Anti-Mouse IL-10	0.5 mg	SXC-1
554465	Biotin Rat Anti-Mouse IL-10	0.5 mg	JES5-16E3
555252	Mouse IL-10 ELISA Set	20 plates	(none)

### Product Notices

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

### References

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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)

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