

# **Mouse IL-10** research grade

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# 1. Description

**Products** Mouse IL-10, research grade.

Recombinant mouse interleukin 10.

Content in µg	Order no.
2	130-094-067
10	130-094-068

Biological activity

The ED<sub>50</sub> is  $\leq 2$  ng/mL corresponding to an

activity of  $\geq 5 \times 10^5$  U/mg.

 $\blacktriangle$  Note: The ED  $_{50}$  is determined by dose-dependent co-stimulation with IL-4 of the proliferation of mouse MC/9

cells.

Primary structure

Single, non-glycosylated polypeptide chain with N-terminal methionine (161 amino acid

residues).

Molecular mass 18.8 kDa.

**Source** Produced in *E. coli*.

**Product format** Lyophilized from a filtered (0.2 μm) buffer

solution.

Stabilizer None.

Reconstitution

Purity >97% as determined by SDS-PAGE analysis.

Endotoxin level Low endotoxin (<1.0 EU/µg cytokine) as determined by Limulus Amebocyte Lysate

(LAL) assay.

Storage Lyophilized Mouse IL-10, research grade

should be stored at -20 °C. The expiration date is indicated on the vial label. Upon reconstitution aliquots should be stored at -20 °C or below. Avoid repeated freeze-thaw cycles.

It is recommended to reconstitute lyophilized

Mouse IL-10, research grade with deionized sterile-filtered water to a final concentration of 0.1–1.0 mg/mL in a minimal volume of 20  $\mu L$ . Further dilutions should be prepared with 0.1% bovine serum albumin (BSA) or human serum albumin (HSA) in phosphate-buffered

saline.

# 1.1 Background information

IL-10 is mainly produced by  $CD4^{\dagger}$  TH2 cells, regulatory T cells (Treg), Ly-1 B cells, and keratinocytes. IL-10 is regarded as a regulator of the development of Ly-1 B cells and inhibits the synthesis and secretion of many cytokines. Expression of IL-10 in

the islets of Langerhans cells of transgenic mice has been shown to lead to a pronounced inflammation of the pancreas. Knockout mice lacking IL-10 are growth retarded, anemic, and suffer from chronic local bowel inflammations. Like IL-4, it enhances the humoral immune response and lessons cell mediated immune reactions. Mouse IL-10 shares 73% amino acid sequence homology with human IL-10 and is able to block the binding of human IL-10 to mouse cells but not to human cells.

# 1.2 Applications

Mouse IL-10 can be used for a variety of applications including:

- In vitro inhibition of inflammatory cytokine production.
- In vitro induction of proliferation and differentiation, in synergy with IL-4.

Optimal concentration for a specific application should be determined by a dose-response experiment.

Refer to www.miltenyibiotec.com for all data sheets and protocols. Miltenyi Biotec provides technical support worldwide. Visit www. miltenyibiotec.com/local to find your nearest Miltenyi Biotec contact.

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