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# 1. Description

Products

Mouse IL-2, research grade.

Recombinant mouse interleukin 2.

	Content in µg	Order no.
	5	130-094-054
	20	130-094-055
	100	130-098-221
	1000	130-108-953
Biological activity	The ED <sub>50</sub> is $\leq 0.2$ ng/mL corresponding to an activity of $\geq 5 \times 10^6$ U/mg.	
	▲ Note: The $ED_{50}$ is determined by proliferation assay using mouse CTLL-2 cells.	
Primary structure	Single, non-glycosylated polypeptide chain (148 amino acid residues).	
Molecular mass	17.2 kDa.	
Source	Produced in E. coli.	
Product format	Lyophilized from a filtered (0.2 $\mu m)$ buffer solution.	
Stabilizer	None.	
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-2, 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.	
Reconstitution	It is recommended to reconstitute lyophilized Mouse IL-2, research grade with deionized sterile-filtered water to a final concentration of $0.1-1.0 \text{ mg/mL}$ in a minimal volume of $100 \mu$ L. Further dilutions should be prepared with 0.1% bovine serum albumin (BSA) or human serum albumin (HSA) in phosphate-buffered saline.	

# Mouse IL-2 research grade

#### 1.1 Background information

Interleukin 2 (IL-2), a potent lymphoid cell growth factor, is a typical four  $\alpha$ -helix bundle cytokine. IL-2 is produced by activated T cells, especially the CD4<sup>+</sup> T helper cell population. It plays an important role in both the activation and maintenance of immune responses and in lymphocyte development. IL-2 promotes proliferation and differentiation of T cells, NK cells, and B cells and is involved in the elimination of self-reactive T cells. IL-2 signals through a receptor complex consisting of IL-2 receptor  $\alpha$ -chain (CD25),  $\beta$ - and common  $\gamma$ -chain. The later two are also used for IL-15 signaling.

### 1.2 Applications

Mouse IL-2 can be used for a variety of applications, including:

- *In vitro* activation and propagation of mouse T cells, e.g., using the T Cell Activation/Expansion Kit, mouse.
- In vitro activation and expansion of NK cells.
- Generation of lymphokine-activated killer (LAK) cells.

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.

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