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## 1. Description

Products	Mouse IL-2 IS, research grade.	
	Recombinant mouse interleukin 2 IS	
	(improved sequence).	
	Content in µg	Order no.
	10	130-120-330
	25	130-120-662
Biological activity	The ED <sub>50</sub> is $\leq$ 0.125 ng/mL corresponding to an activity of $\geq$ 8×10 <sup>6</sup> U/mg.	
	▲ Note: The $ED_{50}$ is determined by proliferation assay using CTLL-2 cells. The proliferation assay was calibrated with the reference standard for mouse IL-2 (NIBSC code 93/566) provided by the WHO/National Institute for Biological Standards and Control.	
Primary structure	Single, non-glycosylated polypeptide chain (149 amino acid residues including a Cys to Ser substitution at amino acid position 160).	
Molecular mass	17.2 kDa.	
Source	Produced in <i>E. coli</i> .	
Product format	Lyophilized from a filtered (0.2 $\mu m)$ buffer solution.	
Stabilizer	Mannitol and trehalose.	
Purity	>95% 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 should be stored at -20 date is indicated on the reconstitution aliquots °C or below. Avoid repe	°C. The expiration vial label. Upon
Reconstitution	It is recommended to reconstitute lyophilized Mouse IL-2 IS, 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 IS 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 IS 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. Miltenyi Biotec provides technical support worldwide. Visit www. miltenyibiotec.com for local Miltenyi Biotec Technical Support contact information.

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