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1. Description

Products	Mouse IFN- α , research grade. Recombinant mouse interferon α .						
	<table border="1"> <thead> <tr> <th>Content</th><th>Order no.</th></tr> </thead> <tbody> <tr> <td>200 μL</td><td>130-093-131</td></tr> <tr> <td>1 mL</td><td>130-093-130</td></tr> </tbody> </table>	Content	Order no.	200 μ L	130-093-131	1 mL	130-093-130
Content	Order no.						
200 μ L	130-093-131						
1 mL	130-093-130						
Biological activity	The ED ₅₀ is ≤ 0.02 ng/mL corresponding to an activity of $\geq 5 \times 10^7$ IU/mL. ▲ Note: The ED ₅₀ is determined by inhibition assay using a T lymphoma BW cell line. The assay was calibrated against the international reference standard for mouse IFN- α (Ga02-901-511).						
Primary structure	Single, glycosylated polypeptide chain (180 amino acid residues).						
Molecular mass	20.4 kDa.						
Source	Produced in HEK293 cells.						
Product format	Liquid, filtered (0.2 μ m) phosphate buffer solution without stabilizer.						
Stabilizer	None.						
Purity	>95% as determined by SDS-PAGE analysis.						
Endotoxin level	Low endotoxin (<0.1 EU/ μ g cytokine) as determined by Limulus Amebocyte Lysate (LAL) assay.						
Storage	Mouse IFN- α , research grade should be stored at -20°C . The expiration date is indicated on the vial label. Aliquots should be stored at -20°C or below. Avoid repeated freeze-thaw cycles.						

1.1 Background information

Type I interferons (IFNs), including IFN- α , are a family of cytokines that exert multiple functions in the immune system. The most prominent effect of IFN- α is its antiviral activity. Upon viral infections, host cells release IFN- α , which can act in an autocrine or paracrine manner to activate intracellular antiviral defense mechanisms and restrict viral replication. Furthermore, IFN- α affects the generation and function of various dendritic cell populations. Immunomodulatory activity and antitumor effects have been described both *in vivo* and *in vitro*.

1.2 Applications

Mouse IFN- α can be used for a variety of applications including:

- *In vitro* investigation of antitumor effects, such as antiproliferative capacities on tumor cell lines.
- Studies on signal transduction and gene expression on cell lines.
- *In vivo* investigation of anti-tumor effects in mouse models of disease.
- Studies of transgenic mice harboring the Cre-recombinase transgene driven by the interferon-inducible Mx promoter (Mx-Cre mice).

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

2. References

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