

Recombinant Mouse Interferon-lambda2/Interleukin-28A (Mouse IFN- λ 2/IL-28A)

Product Information

Product Name	Cat#	Size
	91213ES08	5 μ g
Recombinant Mouse Interferon-lambda2/Interleukin-28A (Mouse IFN- λ 2/IL-28A)	91213ES60	100 μ g
	91213ES76	500 μ g

Product Description

IL-28A (Interferon-lambda 2; IFN-lambda 2), IL-28B/IFN-lambda 3, and IL-29/IFN-lambda 1 are type III interferons which are distantly related to IL-10 family and type I IFN family cytokines. Mature human IL-28A is an approximately 22-25 kDa protein that shares 66% amino acid (aa) sequence identity with mouse and rat IL-28A and shows cross-species activity. It shares 96% and 70% aa sequence identity with human IL-28B and IL-29, respectively. Type III interferons are upregulated in response to viral infection, and they act predominantly on epithelial cells through a receptor complex that contains IL-10 R beta and IL-28 R alpha /IFN-gamma R1. Type III IFNs function as anti-viral molecules and induce the upregulation of MHC class I antigen. IL-28A promotes the Th1 polarization of dendritic cells in the airway (e.g. production of IL-12 p70 and IFN-gamma) and inhibits Th2 and Th17 mediated inflammation. In the liver, however, the IL-28A induced Th1 cytokine response contributes to inflammation in T cell mediated hepatitis. IL-28A additionally exhibits anti-tumor activity, in part by enhancing IL-12 dependent anti-tumor CTL responses in vivo. In contrast, it is up-regulated in invasive bladder cancer where it promotes tumor cell migration.

Product Properties

Synonyms	Interleukin 28A; Interferon lambda-2; Interleukin-28A; IFN-lambda-2
Accession	Q4VK74
GeneID	330496
Source	E.coli-derived Mouse IFN- λ 2/IL-28A, Asp20-Val193
Molecular Weight	Approximately 19.7 kDa.
AA Sequence	DPVPRATRLP VEAKDCHIAQ FKSLSPKELQ AFKKAKDAIE KRLLKDMRC SSHLISRAWD LKQLVQERP KALQAEVALT LKVWENMTDS ALATILGQPL HTLSHIHSQL QTCTQLQATA EPKPPSRRLS RWLHRLQEAQ SKETPGCLEL SVTSNLFRL TRDLKCVASG DQCV
Tag	None
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	> 95 % by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ as determined by an anti-viral assay using human HepG2 cells infected with encephalomyocarditis is less than 3 ng/ml, corresponding to a specific activity of > 3.3 \times 10 ⁵ IU/mg.
Endotoxin	< 0.1 EU per 1 μ g of the protein by the LAL method.
Formulation	Lyophilized from a 0.2 μ m filtered concentrated solution in PBS, pH 7.4, with 5 % trehalose. We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom.
Reconstitution	Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at \leq -20 $^{\circ}$ C. Further dilutions should be made in appropriate buffered solutions.

Shipping and Storage

The products are shipped with ice pack and can be stored at -20°C to -80°C for 1 year.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

Cautions

1. Avoid repeated freeze-thaw cycles.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only!