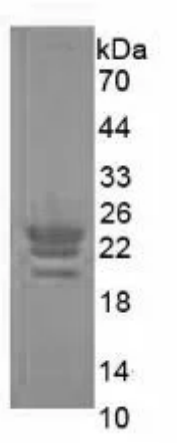
Active Interferon Alpha (IFNa)

Catalog#:PHM12037

概述（Summary）

别称（Alternative Names）	IFNA1; IFL; LeIF D; IFN; IFN-Alpha; IFNA13; IFN-A; IFNAP22; IFN-Alpha 1b; Interferon Alpha 1b; Interferon, Leukocytic; IFN, Leukocyte; Interferon alpha-D
纯度（Purity）	Greater than 97% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Cys24-Lys189】
Accession #	P01572
表达宿主（Host）	293F
种属（Species）	Mus musculus (Mouse)
预测分子量（Predicted MW）	20.7 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
运输方式（Shipping）	The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below.
稳定性&储存（Stability &Storage）	12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles.
复溶（Reconstitution）	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
背景介绍（References）	Produced by macrophages, IFN-alpha have antiviral activities. Interferon stimulates the production of two enzymes: a protein kinase and an oligoadenylate synthetase.

电泳图（SDS-PAGE image）



Greater than 97% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）

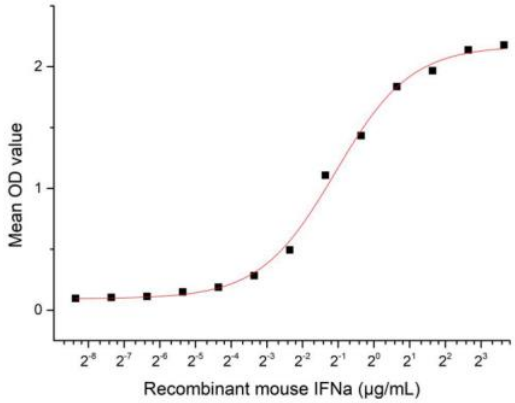


Figure 1. The binding activity of recombinant mouse IFNα and human TYK2

Interferon Alpha (IFNα, encoded by IFNA gene family) is a type I interferon with potent antiviral, antiproliferative, and immunomodulatory activities. It is primarily secreted by plasmacytoid dendritic cells, lymphocytes, and other host cells in response to viral infection, double-stranded RNA, and various pathogen-associated molecular patterns. Upon binding to its cell surface receptor complex IFNAR1/IFNAR2, IFNα initiates intracellular signaling cascades that induce the expression of hundreds of interferon-stimulated genes (ISGs), which inhibit viral replication, modulate immune cell function, and suppress tumor cell growth. Clinically, recombinant IFNα is widely used in the treatment of viral hepatitis, certain hematological malignancies, and some solid tumors. Dysregulation of IFNα signaling is linked to autoimmune diseases and chronic inflammatory disorders. IFNα binding triggers receptor dimerization and recruits TYK2, which mediates downstream JAK-STAT phosphorylation and signaling activation. Thus a functional ELISA assay was conducted to detect the interaction of recombinant mouse IFNα and recombinant human TYK2. Briefly, IFNα was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 µL were then transferred to TYK2-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-IFNα pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37℃, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50 µL stop solution to the wells and read at 450/630nm immediately. The binding activity of recombinant mouse IFNα and recombinant human TYK2 was shown in Figure 1, the EC50 for this effect is 0.473 µg/mL.

注意事项（Note）

For Research Use Only , Not for Diagnostic Use.