Cytokines

Human Recombinant IFN-alpha 2A

Interferon-alpha 2A

Catalog #

| 78076  | 20 μg |
| 78076.1 | 100 μg |

Product Description

Interferon-alpha (IFN-α) is a type I interferon, produced by virus infected cells, and is released as a soluble factor to initiate antiviral responses (Isaacs & Lindenmann). IFN-α2 is the most potent IFN-α used in fundamental research and in most clinical applications. The best known IFN-α2 subvariants, 2A and 2B, differ by only one or two amino acids at positions 23 and/or 34 of the mature protein (von Gabain et al.). Type I IFNs exert potent antitumor activity by increasing the cytotoxic activity of NK and T cells, as well as inhibiting the proliferation of cancer cells (Paul et al.). Additionally, it has been shown that proinflammatory IFN-α modulates the function of B cells in patients with systemic lupus erythematosus (Chang et al.) and pegylated form of IFN-α 2A and 2B has implications in the treatment of Hepatitis C (Foster et al.).

Product Information

Alternative Names: IFN-alpha 2, IFNA2, IFNA2a
Accession Number: P01563
Amino Acid Sequence: MCDLPQTHSL GSRRILMLLA QMRKISLFSC LKDRHDFGFP QEEFGNQFOQ KETIPVLHEM IQQIFNLFST KDSSAAWDET LLDKFYTEL QQLNDEACV IQGVGVTETP LMKEDSILAV RKFQRTLY LKEKKYSPCA WEVVRAEIMR SFSLSTNLQE SLRSKE
Predicted Molecular Mass: 19.4 kDa
Species: Human
Cross Reactivity: Cow
Formulation: Lyophilized from a sterile filtered aqueous solution containing 0.1% trifluoroacetic acid.
Source: E. coli

Specifications

Activity: The specific activity is ≥ 2 x 10^8 units/mg (EC50 ≤ 5 pg/mL) as determined in a viral challenge assay using EMC virus on A549 cells.
Purity: ≥ 95 %
Endotoxin Level: Measured by kinetic limulus amebocyte lysate (LAL) analysis and is ≤ 1 EU/μg protein.

Preparation and Storage

Storage: Store at -20°C to -80°C.
Stability: Stable as supplied for 12 months from date of receipt.
Preparation: Centrifuge vial before opening. Resuspend the product in sterile water containing 0.1% bovine serum albumin (BSA) to at least 0.1 mg/mL by pipetting the solution down the sides of the vial. Do not vortex. Store at 2 - 8°C for up to 1 month or at -20°C to -80°C for up to 3 months. Avoid repeated freeze-thaw cycles. NOTE: If reconstituted product will be used immediately BSA is not required.
(A) The biological activity of Human Recombinant IFN-alpha 2A was measured with A549 cells exposed to the encephalomyocarditis (EMC) virus in a cytopathic effect (CPE) assay. Cell survival was measured using a fluorometric assay method. The EC50 is defined as the effective concentration of the cytokine at which cell survival is at 50% of maximum. The EC50 in the example above is 3.6 pg/mL.

(B) 1 μg of Human Recombinant IFN-alpha 2A was resolved with SDS-PAGE under reducing (+) and non-reducing (-) conditions and visualized by Coomassie Blue staining. Human Recombinant IFN-alpha 2A has a predicted molecular mass of 19.4 kDa.

Related Products

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References


