

Animal-Free IFN-beta Protein, Human (His)

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| Cat. No.: | HY-P700090AF |
| Synonyms: | IFNB1; Type I Interferon |
| Species: | Human |
| Source: | E. coli |
| Accession: | NP_002167.1 (M22-N187) |
| Gene ID: | 3456 |
| Molecular Weight: | Approximately 20.84 kDa |

PROPERTIES

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| AA Sequence | <pre> MSYNLLGFLQ RSSNFQCQKL LWQLNGRLEY CLKDRMNFDI PEEIKQLQQF QKEDAALTIY EMLQNIFAIF RQDSSSTGWN ETIVENLLAN VYHQINHLKT VLEEKLEKED FTRGKLMSSL HLKRYYGRI L HYLKAKEYSH CAWTIVRVEI LRNFYFINRL TGYLRN </pre> |
| Biological Activity | <p>1. Measure by its ability to induce apoptosis in HeLa cells. The ED₅₀ for this effect is <15 ng/mL.</p> <p>2. Measure by its ability to induce cytotoxicity in TF-1 cells. The ED₅₀ for this effect is <0.1 ng/mL. The specific activity of recombinant human IFN beta 1a is approximately >1 x10⁷ IU/ mg.</p> |
| Appearance | Lyophilized powder. |
| Formulation | Lyophilized from a solution containing 1X PBS, pH 8.0. |
| Endotoxin Level | <0.1 EU per 1 µg of the protein by the LAL method. |
| Reconstitution | It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. |
| Storage & Stability | Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage. |
| Shipping | Room temperature in continental US; may vary elsewhere. |

DESCRIPTION

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| Background | <p>The IFN-beta Protein encodes a cytokine belonging to the interferon family, released as part of the innate immune response against pathogens. This protein falls under the type I class of interferons, crucial for defense against viral infections, as well as participating in cell differentiation and anti-tumor defenses. Upon secretion in response to pathogens, type I interferons bind a homologous receptor complex, triggering the transcription of genes involved in inflammatory cytokines and</p> |
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chemokines. Aberrant activation of type I interferon secretion is associated with autoimmune diseases. Mice deficient for this gene exhibit several phenotypes, including defects in B cell maturation and increased susceptibility to viral infection, emphasizing the pivotal role of IFN-beta Protein in immune responses and host defense.

Caution: Product has not been fully validated for medical applications. For research use only.

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