

Human IFN alpha 1 Protein



Cat. No. IFN-HM2A1

| Description      |   |
|------------------|---|
| Source           | Recombinant Human IFN alpha 1 Protein is expressed from HEK293 with hFc tag at the C-Terminus.<br>It contains Cys24-Glu189.         |
| Accession        | P01562  |
| Molecular Weight | The protein has a predicted MW of 46.14 kDa. Due to glycosylation, the protein migrates to 48-55 kDa based on Bis-Tris PAGE result. |
| Endotoxin        | Less than 1 EU per µg by the LAL method.  |
| Purity           | > 95% as determined by Bis-Tris PAGE<br>> 95% as determined by HPLC   |

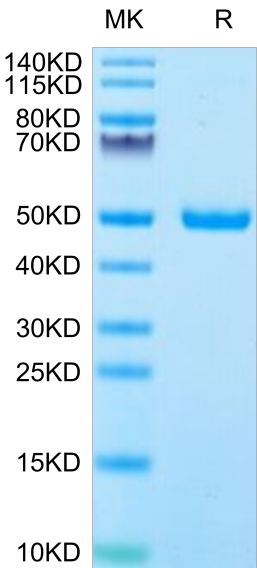
| Formulation and Storage |   |
|-------------------------|---|
| Formulation             | Lyophilized from 0.22µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.  |
| Reconstitution          | Dissolve the lyophilized protein in distilled water. Please refer to the Certificate of Analysis for detailed instructions.   |
| Storage                 | -20 to -80°C for 12 months as supplied from date of receipt.-80°C for 3 months after reconstitution.Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles. |

**Background**

IFN-α, a cytokine expressed in human islets from individuals affected by type 1 diabetes, plays a key role in the pathogenesis of diabetes by upregulating inflammation, endoplasmic reticulum (ER) stress and MHC class I overexpression, three hallmarks of islet histology in early type 1 diabetes.

Assay Data

Bis-Tris PAGE



Human IFN alpha 1 on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

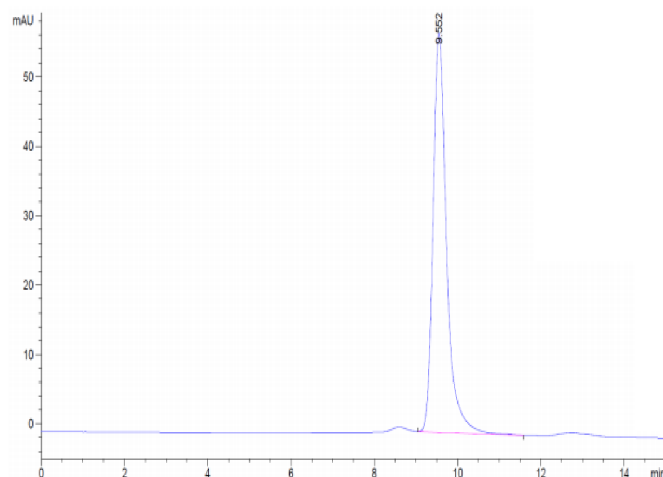
SEC-HPLC

# Human IFN alpha 1 Protein

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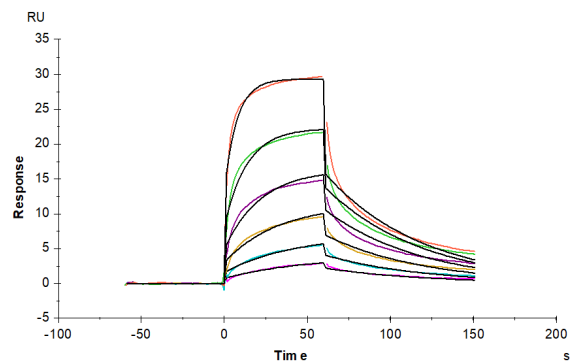


## Assay Data

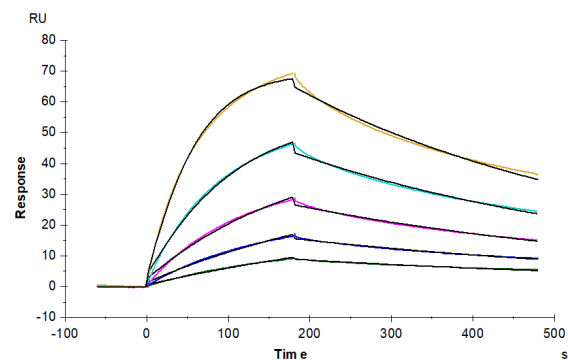


The purity of Human IFN alpha 1 is greater than 95% as determined by SEC-HPLC.

## SPR Data



Human IFN alpha/beta R1, His Tag captured on CM5 Chip via anti-his antibody can bind Human IFN alpha 1, hFc Tag with an affinity constant of 0.12  $\mu$ M as determined in SPR assay (Biacore T200) (QC Test).



Human IFN alpha/beta R2, His Tag captured on CM5 Chip via anti-his antibody can bind Human IFN alpha 1, hFc Tag with an affinity constant of 11.90 nM as determined in SPR assay (Biacore T200) (QC Test).