

**Anti-IFN $\gamma$  Reference Antibody (fontolizumab)  
Recombinant Antibody  
Catalog # APR10220****Specification**

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**Anti-IFN $\gamma$  Reference Antibody (fontolizumab) - Product Information**

Application	FC, E, FTA
Primary Accession	<a href="#">P01579</a>
Reactivity	Human
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	145 KDa

**Anti-IFN $\gamma$  Reference Antibody (fontolizumab) - Additional Information****Target/Specificity**  
IFN $\gamma$ **Endotoxin**  
< 0.001EU/  $\mu$ g,determined by LAL method.**Conjugation**  
Unconjugated**Expression system**  
CHO Cell**Format**  
Purified monoclonal antibody supplied in PBS, pH6.0, without preservative.This antibody is purified through a protein A column.**Anti-IFN $\gamma$  Reference Antibody (fontolizumab) - Protein Information****Name** IFNG**Function**  
Type II interferon produced by immune cells such as T-cells and NK cells that plays crucial roles in antimicrobial, antiviral, and antitumor responses by activating effector immune cells and enhancing antigen presentation (PubMed:<a href="http://www.uniprot.org/citations/16914093" target="\_blank">16914093</a>, PubMed:<a href="http://www.uniprot.org/citations/8666937" target="\_blank">8666937</a>). Primarily signals through the JAK-STAT pathway after interaction with its receptor IFNGR1 to affect gene regulation (PubMed:<a href="http://www.uniprot.org/citations/8349687" target="\_blank">8349687</a>). Upon IFNG binding, IFNGR1 intracellular domain opens out to allow association of downstream signaling components JAK2, JAK1 and STAT1, leading to STAT1 activation, nuclear translocation and transcription of IFNG-regulated genes. Many of the induced genes are transcription factors such as IRF1 that are able to further drive regulation of a next wave of transcription (PubMed:<a href="http://www.uniprot.org/citations/16914093" target="\_blank">16914093</a>). Plays a role

in class I antigen presentation pathway by inducing a replacement of catalytic proteasome subunits with immunoproteasome subunits (PubMed:<a href="http://www.uniprot.org/citations/8666937" target="\_blank">8666937</a>). In turn, increases the quantity, quality, and repertoire of peptides for class I MHC loading (PubMed:<a href="http://www.uniprot.org/citations/8163024" target="\_blank">8163024</a>). Increases the efficiency of peptide generation also by inducing the expression of activator PA28 that associates with the proteasome and alters its proteolytic cleavage preference (PubMed:<a href="http://www.uniprot.org/citations/11112687" target="\_blank">11112687</a>). Up-regulates as well MHC II complexes on the cell surface by promoting expression of several key molecules such as cathepsins B/CTSB, H/CTSH, and L/CTSL (PubMed:<a href="http://www.uniprot.org/citations/7729559" target="\_blank">7729559</a>). Participates in the regulation of hematopoietic stem cells during development and under homeostatic conditions by affecting their development, quiescence, and differentiation (By similarity).

#### Cellular Location

Secreted.

#### Tissue Location

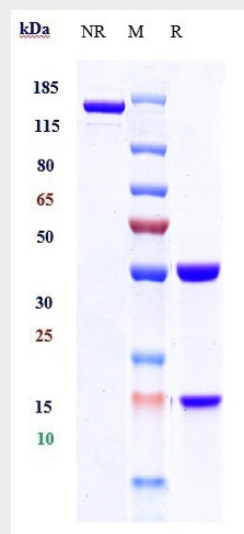
Released primarily from activated T lymphocytes.

### Anti-IFN $\gamma$ Reference Antibody (fontolizumab) - Protocols

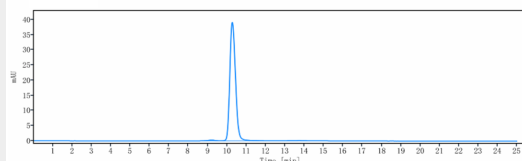
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

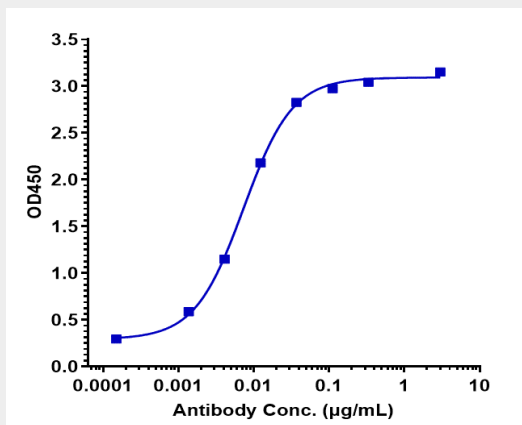
### Anti-IFN $\gamma$ Reference Antibody (fontolizumab) - Images



Anti-IFN $\gamma$  Reference Antibody (fontolizumab) on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%



The purity of Anti-IFN $\gamma$  Reference Antibody (fontolizumab) is more than 95% ,determined by SEC-HPLC.



Immobilized human IFN  $\gamma$  His at 2  $\mu$ g/mL can bind Anti-IFN $\gamma$  Reference Antibody (fontolizumab)  $\square$ EC<sub>50</sub>=0.007326  $\mu$ g/mL