Anti-Human Interferon gamma Antibody [PSH01-47] - BSA and Azide free (Detector)

HA721685

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	ELISA(Det)
Molecular Wt:	19.3
Clone number:	PSH01-47

Description: 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. Primarily signals through the JAK-STAT pathway after interaction with its receptor IFNGR1 to affect gene regulation. 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. Plays a role in class I antigen presentation pathway by inducing a replacement of catalytic proteasome subunits with immunoproteasome subunits. In turn, increases the quantity, quality, and repertoire of peptides for class I MHC loading. 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. 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. Participates in the regulation of hematopoietic stem cells during development and under homeostatic conditions by affecting their development, quiescence, and differentiation.

Immunogen: Recombinant protein within human Interferon gamma aa 24-161.

Positive control: Recombinant Human Interferon gamma protein (HA210762).

Subcellular location: Secreted.

Database links: SwissProt: P01579 Human

Recommended Dilutions:

ELISA(Det) Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [PSH01-45] or [PSH01-46]to Human Human Interferon gamma (Capture) (HA721683) or (HA721684).

Storage Buffer: PBS (pH7.4).

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

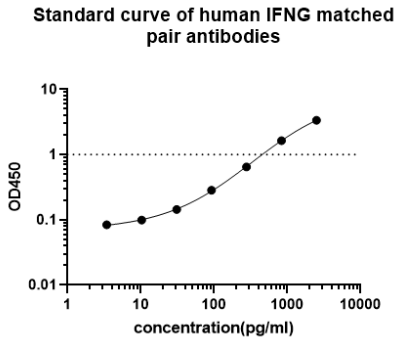

Fig1: Standard curve of human IFNG matched pair antibodies:

Sandwich ELISA analysis of human IFNG matched pair antibodies
Elisa assay was performed by coating wells of a 96-well plate with 100 µl per well of capture antibody [PSH01-45] diluted in carbonate/bicarbonate buffer, at a concentration of 4 µg/mL overnight at 4℃. Wells of the plate were washed, blocked with 150 µl 0.05% tween-20 1%BSA blocking buffer, and incubated with serial diluted IFNG protein starting from 2500 pg/ml to 0 pg/ml and detect antibody [PSH01-47]-Biotin (0.2 µg/ml) for 1 hour at 30℃ with shaking. Then the plate was washed and incubated with 100 µl per well of SA-HRP for 0.5 hour at 30℃ with shaking. Detection was performed using an Ultra TMB Substrate for 10 minutes at room temperature in the dark. The reaction was stopped with sulfuric acid and absorbances were read on a spectrophotometer at 450 nm.

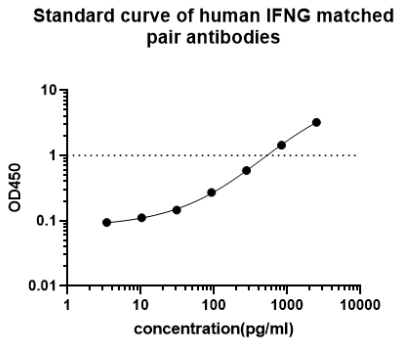

Fig2: Standard curve of human IFNG matched pair antibodies:

Sandwich ELISA analysis of human IFNG matched pair antibodies
Elisa assay was performed by coating wells of a 96-well plate with 100 µl per well of capture antibody [PSH01-46] diluted in carbonate/bicarbonate buffer, at a concentration of 4 µg/mL overnight at 4℃. Wells of the plate were washed, blocked with 150 µl 0.05% tween-20 1%BSA blocking buffer, and incubated with serial diluted IFNG protein starting from 2500 pg/ml to 0 pg/ml and detect antibody [PSH01-47]-Biotin (0.2 µg/ml) for 1 hour at 30℃ with shaking. Then the plate was washed and incubated with 100 µl per well of SA-HRP for 0.5 hour at 30℃ with shaking. Detection was performed using an Ultra TMB Substrate for 10 minutes at room temperature in the dark. The reaction was stopped with sulfuric acid and absorbances were read on a spectrophotometer at 450 nm.

Background References

1. Hisamatsu H., Shimbara N., Saito Y., Kristensen P., Hendil K.B., Fujiwara T., Takahashi E., Tanahashi N., Tamura T., Ichihara A., Tanaka K. Newly identified pair of proteasomal subunits regulated reciprocally by interferon gamma. J. Exp. Med. 183:1807-1816 (1996)
2. El Bougrini J., Pampin M., Chelbi-Alix M.K. Arsenic enhances the apoptosis induced by interferon gamma: key role of IRF-1. Cell. Mol. Biol. 52:9-15 (2006)