Anti-Mouse Interferon alpha 1 Antibody [PSH14-77] - BSA and Azide free (Capture)

HA723672

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Mouse
Applications:	ELISA(Cap)
Clone number:	PSH14-77

Description: This gene is a member of the alpha interferon gene cluster on chromosome 9. The encoded cytokine is a member of the type I interferon family that is produced in response to viral infection as a key part of the innate immune response with potent antiviral, antiproliferative and immunomodulatory properties. This cytokine, like other type I interferons, binds a plasma membrane receptor made of IFNAR1 and IFNAR2 that is ubiquitously expressed, and thus is able to act on virtually all body cells. This cytokine is upregulated in preeclamptic placentas and is thought to be a mediator of preeclampsia.

Immunogen: Recombinant protein within mouse Interferon alpha-1 aa 24-189 (HA210987).

Positive control: Recombinant Mouse Interferon alpha 1 protein (HA210987).

Subcellular location: Secreted.

Database links: SwissProt: P01572 Mouse

Recommended Dilutions:

ELISA(Cap) Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [PSH14-76] to Mouse Interferon alpha 1 antibody (Detector) (HA723670) and Recombinant Mouse Interferon alpha 1 protein (HA210987) as the standard. The reference range value is 15.6-2,000 pg/mL.

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

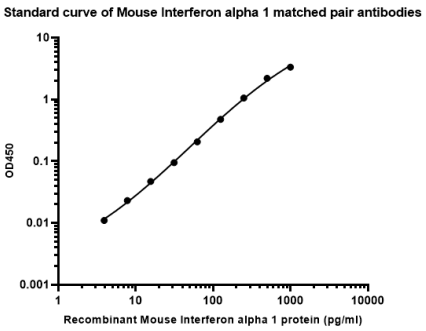

Fig1: Sandwich ELISA analysis of Mouse IFNA matched pair antibodies

Capture: HA723672, Mouse Interferon alpha 1 Rabbit mAb [PSH14-77]
Detector: HA723670, Mouse Interferon alpha 1 Rabbit mAb [PSH14-76]

Elisa assay was performed by coating wells of a 96-well plate with 100 µl per well of capture antibody (HA723669) diluted in carbonate/bicarbonate buffer, at a concentration of 2 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 Recombinant Mouse Interferon alpha 1 protein (HA210987) starting from 1,000 pg/ml to 0 pg/ml and detect antibody (HA723672, 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.

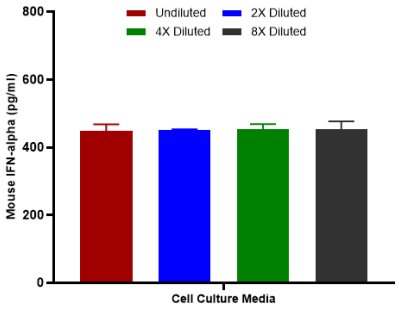

Fig2: Interpolated concentrations of spiked IFN-alpha in mouse cell culture media samples.

Capture: HA723672, Mouse Interferon alpha 1 Rabbit mAb [PSH14-77]
Detector: HA723670, Mouse Interferon alpha 1 Rabbit mAb [PSH14-76]

The concentrations of IFN-alpha were measured in duplicates, interpolated from the IFN-alpha standard curves and corrected for sample dilution. Undiluted samples are as follows: cell culture media 25%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2).

Background References

1. Jeon K et al. Elevated IFNA1 and suppressed IL12p40 associated with persistent hyperinflammation in COVID-19 pneumonia. Front Immunol. 2023 Jan
2. Liu J et al. IFNA1 and IFNA13 Genes Confer Genetic Predisposition to Ankylosing Spondylitis-Associated Uveitis in a Chinese Population. Curr Eye Res. 2021 Apr

Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation