

Porcine IFN- γ Antibody Pair Set

Catalog No.	E-KAB-0621	Applications	ELISA
Synonyms	IFG;IFI;IFNG;Type II Interferon		

Kit components & Storage

Title	Specifications	Storage
Porcine IFN- γ Capture Antibody	1 vial, 100 μ g	Store at -20°C for one year. Avoid freeze/thaw cycles.
Porcine IFN- γ Detection Antibody (Biotin)	1 vial, 50 μ L	Store at -20°C for one year. Avoid freeze/thaw cycles.

Note: Centrifuge before opening to ensure complete recovery of vial contents.

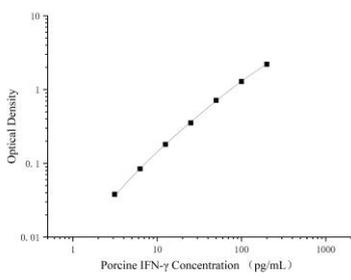
Product Information

Items		Characteristic (E-KAB-0621)	
		Porcine IFN- γ Capture Antibody	Porcine IFN- γ Detection Antibody (Biotin)
Immunogen Information	Immunogen	Recombinant Porcine IFN- γ protien	Recombinant Porcine IFN- γ protien
	Swissprot	P17803	
Product details	Reactivity	Porcine	Porcine
	Host	Goat	Goat
	Conjugation	Unconjugated	Biotin
	Concentration	0.5 mg/mL	/
	Buffer	PBS with 0.04% Proclin 300; 50% glycerol; pH 7.5	PBS with 0.04% Proclin 300; 1% protective protein; 50% glycerol; pH 7.5
	Purify	Antigen Affinity	Antigen Affinity
	Specificity	Detects Porcine IFN- γ in ELISAs.	

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Applications

Porcine IFN- γ Sandwich ELISA Assay

	Recommended Concentration/Dilution	Reagent	Images										
ELISA Capture	0.5-4 $\mu\text{g/mL}$	Porcine IFN- γ Capture Antibody	 <p>The graph displays a standard curve for the Porcine IFN-γ Sandwich ELISA Assay. The x-axis represents Porcine IFN-γ Concentration in pg/mL on a logarithmic scale from 1 to 1000. The y-axis represents Optical Density on a logarithmic scale from 0.01 to 10. The data points form a straight line, indicating a linear relationship between concentration and optical density.</p> <table border="1"> <caption>Approximate data points from the standard curve</caption> <thead> <tr> <th>Porcine IFN-γ Concentration (pg/mL)</th> <th>Optical Density</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>0.05</td> </tr> <tr> <td>10</td> <td>0.5</td> </tr> <tr> <td>100</td> <td>5</td> </tr> <tr> <td>1000</td> <td>50</td> </tr> </tbody> </table>	Porcine IFN- γ Concentration (pg/mL)	Optical Density	1	0.05	10	0.5	100	5	1000	50
Porcine IFN- γ Concentration (pg/mL)	Optical Density												
1	0.05												
10	0.5												
100	5												
1000	50												
ELISA Detection	1:1000-1:10000	Porcine IFN- γ Detection Antibody (Biotin)											

Note: This standard curve is only for demonstration purposes. A standard curve should be generated for each assay!

Background

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.

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