Datasheet for ABIN411283

Interferon gamma ELISA Kit

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Overview

Quantity:	96 tests
Target:	Interferon gamma (IFNG)
Binding Specificity:	AA 23-155
Reactivity:	Mouse
Method Type:	Sandwich ELISA
Detection Range:	31.2-2000 pg/mL
Minimum Detection Limit:	31.2 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Mouse IFN gamma
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: E.coli Immunogen sequence: H23-C155
Specificity:	Expression system for standard: E.coli Immunogen sequence: H23-C155
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<5pg/mL
Material not included:	Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g Nacl

Target Details

Target:	Interferon gamma (IFNG)
Alternative Name:	IFNG (IFNG Products)
Background:	Protein Function: Produced by lymphocytes activated by specific antigens or mitogens. IFN-gamma, in addition to having antiviral activity, has important immunoregulatory functions. It is a potent activator of macrophages, it has antiproliferative effects on transformed cells and it can potentiate the antiviral and antitumor effects of the type I interferons. Background: Interferon-gamma(IFN-gamma) is an inflammatory cytokine that has been implicated in the development of fibrosis in inflamed tissues. The production of IFN-gamma, which is under genetic control, can influence the development of fibrosis in lung allografts. IFN-gamma is also produced by natural killer(NK) cells and most prominently by CD8 cytotoxic T cells, and is vital for the control of microbial pathogens. Interferon gamma is believed to be crucial for host defence against many infections. Genetically determined variability in IFN-gamma and expression might be important for the development of tuberculosis. IFN-gamma activates human macrophage oxidative metabolism and antimicrobial activity. In addition to having antiviral activity, IFN-gamma has important immunoregulatory functions. IFN-gamma plays an important role in the control of neointima proliferation. Synonyms: Interferon gamma,IFN-gamma,Ifng, Full Gene Name: Interferon gamma Cellular Localisation: Secreted.
Gene ID:	15978
UniProt:	P01580
Pathways:	Interferon-gamma Pathway, Cellular Response to Molecule of Bacterial Origin, Regulation of Leukocyte Mediated Immunity, Positive Regulation of Immune Effector Process, Production of Molecular Mediator of Immune Response, ER-Nucleus Signaling, Regulation of Carbohydrate Metabolic Process, Protein targeting to Nucleus, Autophagy

Application Details

Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.
Comment:	Tissue Specificity: Released primarily from activated T lymphocytes.
Plate:	Pre-coated
Protocol:	mouse IFN gamma ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from rat specific for IFN gamma has been precoated onto 96-well plates. Standards(E.coli, H23-C155) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for IFN gamma is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the mouse IFN gamma amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 2000pg/mL,1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.2pg/mL mouse IFN gamma standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of mouse cell culture supernates or serum to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each mouse IFN gamma standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(pg/ml): 305, Standard deviation: 11.59, CV(%): 3.8 • Sample 2: n=16, Mean(pg/ml): 782, Standard deviation: 35.19, CV(%): 4.5 • Sample 3: n=16, Mean(pg/ml): 1367, Standard deviation: 69.72, CV(%): 5.1, • Sample 1: n=24, Mean(pg/ml): 350, Standard deviation: 19.6, CV(%): 5.6 • Sample 2: n=24, Mean(pg/ml): 812, Standard deviation: 55.22, CV(%): 6.8 • Sample 3: n=24, Mean(pg/ml): 1494, Standard deviation: 109.1, CV(%): 7.3
Restrictions:	For Research Use only

Handling

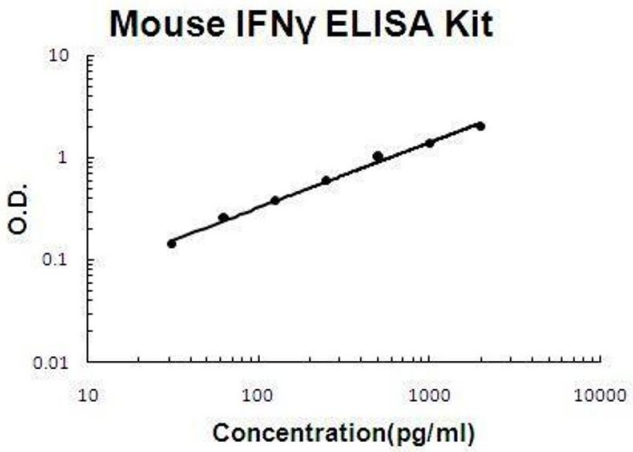
Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C,4 °C
Storage Comment:	Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles
Expiry Date:	12 months

Publications

Product cited in: Mern, Fontana, Beierfuß, Thomé, Hegewald et al.: "A combinatorial relative mass value evaluation of endogenous bioactive proteins in three-dimensional cultured nucleus pulposus cells of herniated intervertebral discs: identification of potential ..." in: **PLoS ONE**, Vol. 8, Issue 11 , pp. e81467, (2013) (PubMed).

There are more publications referencing this product on: Product page

Images



ELISA

Image 1. Mouse IFN gamma PicoKine ELISA Kit standard curve