abcam

Product datasheet

Human Interferon gamma Receptor 1 ELISA Kit (CD119) ab173193

SimpleStep ELISA

5 Images

Overview

Product name Human Interferon gamma Receptor 1 ELISA Kit (CD119)

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
MCF7 Lysate	9			4.9%

Inter-assay

Sample	n	Mean	SD	CV%
MCF7 Lysate	3			6.2%

Sample type Cell culture extracts, Adherent cells, Suspension cells, Cell Lysate, Tissue Homogenate

Assay type Sandwich (quantitative)

Sensitivity 140 pg/ml

Range 0.14 ng/ml - 100 ng/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Serum	82	72% - 87%
Plasma	78	73% - 85%
Cell culture media	84	80% - 94%

Assay time 1h 30m

Assay duration One step assay

Species reactivity **Reacts with:** Human

Product overview

Human Interferon-gamma Receptor 1 (CD119) ELISA kit (**ab173194**) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of Interferon-gamma Receptor 1 protein in cell lysates and tissue extracts. It uses our proprietary SimpleStep ELISA® technology. Quantitate human Interferon-gamma Receptor 1 with 140 pg/ml sensitivity.

SimpleStep ELISA® technology employs capture antibodies conjugated to an affinity tag that is recognized by the monoclonal antibody used to coat our SimpleStep ELISA® plates. This approach to sandwich ELISA allows the formation of the antibody-analyte sandwich complex in a single step, significantly reducing assay time. See the SimpleStep ELISA® protocol summary in the image section for further details. Our SimpleStep ELISA® technology provides several benefits:

-Single-wash protocol reduces assay time to 90 minutes or less
-High sensitivity, specificity and reproducibility from superior antibodies
-Fully validated in biological samples
-96-wells plate breakable into 12 x 8 wells strips

A 384-well SimpleStep ELISA® microplate (**ab203359**) is available to use as an alternative to the 96-well microplate provided with SimpeStep ELISA® kits.

Notes

Interferon gamma receptor 1 (IFNGR1) is a heterodimeric receptor that binds one interferon gamma dimer as a ligand. The receptor is a single-pass type I membrane protein present on the plasma membrane. A genetic variation in the IFNGR1 gene is associated with susceptibility to Helicobacter pylori infection. Defects in IFNGR1 are a cause of mendelian susceptibility to mycobacterial disease (MSMD); also known as familial disseminated atypical mycobacterial infection. This rare condition confers predisposition to illness caused by moderately virulent mycobacterial species, such as Bacillus Calmette-Guerin (BCG) vaccine and environmental non-tuberculous mycobacteria, and by the more virulent Mycobacterium tuberculosis.

Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances.
It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses.

Platform

Microplate

Properties

Storage instructions

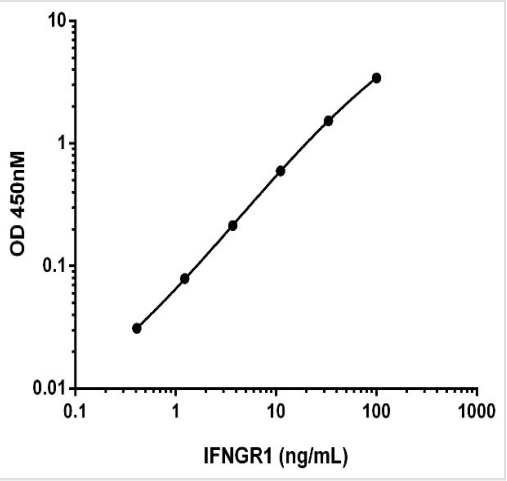
Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
10X Human IFNGR1 Capture Antibody	1 x 600µl
10X Human IFNGR1 Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
50X Cell Extraction Enhancer Solution (ab193971)	1 x 1ml
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml

Components	1 x 96 tests
Antibody Diluent 5B	1 x 6ml
Human IFNGR1 Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 12ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

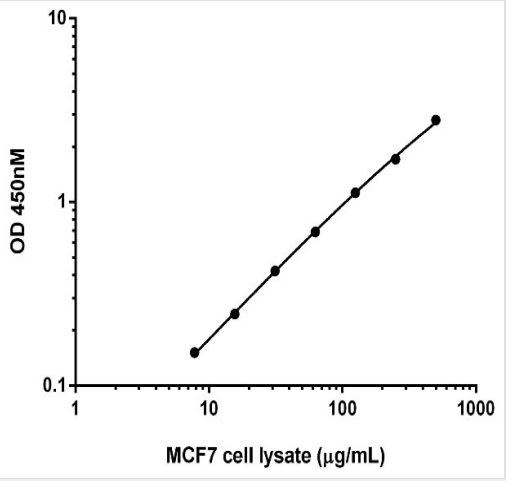
Function	Receptor for interferon gamma. Two receptors bind one interferon gamma dimer.
Involvement in disease	Defects in IFNGR1 are a cause of mendelian susceptibility to mycobacterial disease (MSMD) [MIM:209950]; also known as familial disseminated atypical mycobacterial infection. This rare condition confers predisposition to illness caused by moderately virulent mycobacterial species, such as Bacillus Calmette-Guerin (BCG) vaccine and environmental non-tuberculous mycobacteria, and by the more virulent Mycobacterium tuberculosis. Other microorganisms rarely cause severe clinical disease in individuals with susceptibility to mycobacterial infections, with the exception of Salmonella which infects less than 50% of these individuals. The pathogenic mechanism underlying MSMD is the impairment of interferon-gamma mediated immunity whose severity determines the clinical outcome. Some patients die of overwhelming mycobacterial disease with lepromatous-like lesions in early childhood, whereas others develop, later in life, disseminated but curable infections with tuberculoid granulomas. MSMD is a genetically heterogeneous disease with autosomal recessive, autosomal dominant or X-linked inheritance.
Sequence similarities	Belongs to the type II cytokine receptor family. Contains 2 fibronectin type-III domains. Contains 2 Ig-like C2-type (immunoglobulin-like) domains.
Post-translational modifications	Phosphorylated at Ser/Thr residues.
Cellular localization	Membrane.

Images



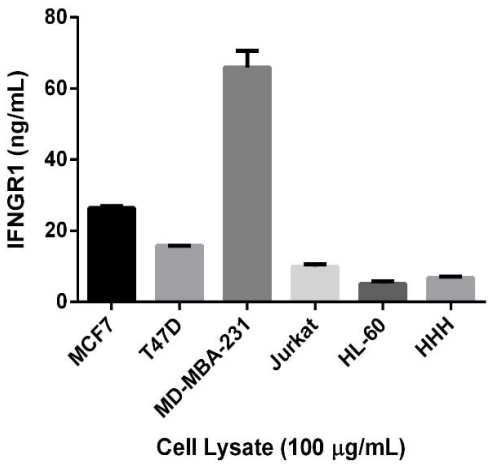
Typical Standard Curve

Example IFNGR1 standard curve. Background-subtracted data values (mean +/- SD) are graphed. A new standard curve must be generated for each assay performed.



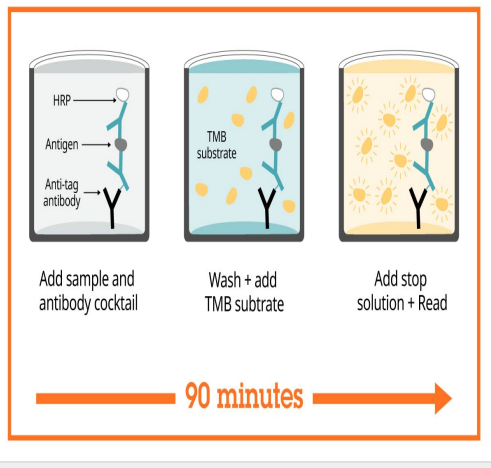
ELISA typical data

Titration of MCF7 cell lysate within the working range of the assay. Background subtracted data from triplicate measurements are plotted.



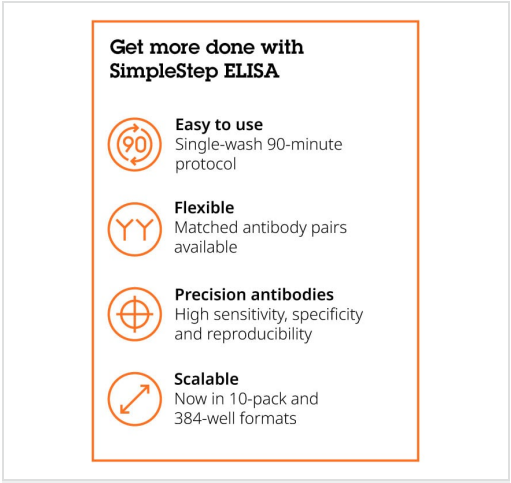
Example data

Quantification of IFNGR1 expression in different mammalian cell lines. Interpolated values of IFNGR1 are plotted for the indicated cell lines based on a lysate concentration of 100 µg/mL.



Sandwich ELISA - Human Interferon gamma Receptor 1 ELISA Kit (CD119) (ab173193)

SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



Sandwich ELISA - Human Interferon gamma Receptor 1 ELISA Kit (CD119) (ab173193)

To learn more about the advantages of SimpleStep ELISA® kits see **here**.

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