abcam

Product datasheet

Rat IgG ELISA Kit, Fluorescent ab229388

CatchPoint SimpleStep ELISA

3 Images

Overview

Product name Rat IgG ELISA Kit, Fluorescent

Detection method Fluorescent

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Rat serum	3			2.66%

Inter-assay

Sample	n	Mean	SD	CV%
Rat serum	3			3.61%

Sample type Cell culture supernatant, Serum, Hep Plasma, EDTA Plasma, Cit plasma

Assay type Sandwich (quantitative)

Sensitivity 35 pg/ml

Range 0.04 ng/ml - 160 ng/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Antibody Diluent 4B	103.7	99.4% - 110.97%
10F DMEM Medium	79.1	67.5% - 98%
OF DMEM Medium	76.5	62.8% - 94%

Assay time 1h 30m

Assay duration One step assay

Species reactivity **Reacts with:** Rat
Does not react with: Goat, Cow, Pig

Product overview Immunoglobulin G (IgG) *in vitro* CatchPoint SimpleStep ELISA (Enzyme-Linked Immunosorbent

Assay) kit is designed for the quantitative measurement of Immunoglobulin G (IgG) protein in rat serum, plasma, and cell culture supernatant.

This CatchPoint SimpleStep ELISA kit has been **optimized for Molecular Devices Microplate Readers**. Click **here** for a list of recommended Microplate Readers.
If using a Molecular Devices' plate reader supported by SoftMax® Pro software, a preconfigured protocol for these CatchPoint SimpleStep ELISA Kits is available with all the protocol and analysis settings at **www.softmaxpro.org**.

The CatchPoint SimpleStep ELISA employs an affinity tag labeled capture antibody and a reporter conjugated detector antibody which immunocapture the sample analyte in solution. This entire complex (capture antibody/analyte/detector antibody) is in turn immobilized via immunoaffinity of an anti-tag antibody coating the well. To perform the assay, samples or standards are added to the wells, followed by the antibody mix. After incubation, the wells are washed to remove unbound material. CatchPoint HRP Development Solution containing the Stoplight Red Substrate is added. During incubation, the substrate is catalyzed by HRP generating a fluorescent product. Signal is generated proportionally to the amount of bound analyte and the intensity is measured in a fluorescence plater reader at 530/570/590 nm Excitation/Cutoff/Emission.

Notes

There are four classes of immunoglobulins in rat: IgA, IgE, IgM, and IgG. IgG is the most abundant immunoglobulin and is equally distributed in blood and tissue. In rat, the IgG class is further divided into four subclasses: IgG1, IgG2a, IgG2b, and IgG2c. The general immunoglobulin structure is composed of four polypeptide chains, two heavy and two light chains linked together and to each other by disulfide bonds, creating a tetrameric quaternary structure. The resulting tetramer creates two identical halves which together form a Y like structure. While the amino-terminal portions that exhibits highly variable amino-acid composition are involved in antigen binding, the C terminal constant parts are involved in complement binding, placental passage and binding to cell membrane.

IgG is involved in response to a foreign antigen and the presence of IgG usually signifies a mature antibody response. IgG has a molecular weight of about 150 kDa, can bind to many pathogens and also plays an important role in antibody dependent cell-mediated cytotoxicity. Typically rat serum and plasma samples contain about 7 to 10 mg/ml of IgG.

Platform

Pre-coated microplate (12 x 8 well strips)

Properties

Storage instructions

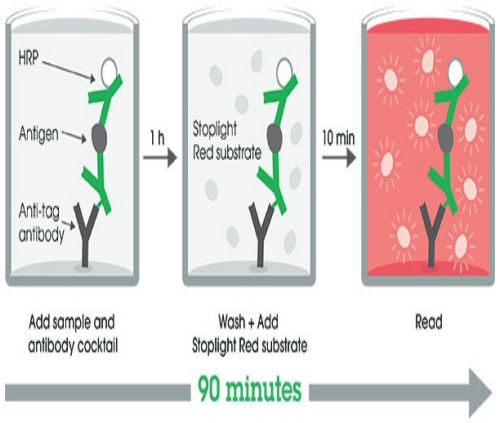
Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
100X Stoplight Red Substrate	1 x 120µl
10X Rat IgG Capture Antibody	1 x 600µl
10X Rat IgG Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
500X Hydrogen Peroxide (H_2O_2, 3%)	1 x 50µl

Components	1 x 96 tests
Antibody Diluent 4B	1 x 6ml
Plate Seals	1 unit
Rat IgG Lyophilized Purified Protein	2 vials
Sample Diluent NS (ab193972)	1 x 50ml
SimpleStep Pre-Coated Black 96-Well Microplate	1 unit
Stoplight Red Substrate Buffer	1 x 12ml

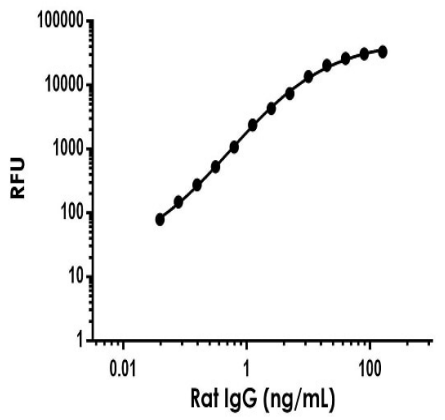
Cellular localization Secreted

Images



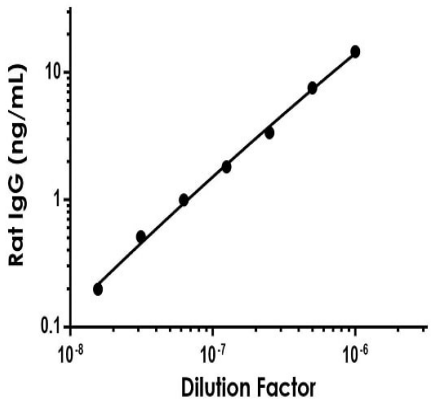
Other - Rat IgG ELISA Kit, Fluorescent (ab229388)

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.



Example of rat Immunoglobulin G (IgG) standard curve in Sample Diluent NS.

The Immunoglobulin G (IgG) standard curve was prepared as described in Section 10. Background-subtracted data values (mean +/- SD) are graphed.



Example of rat serum IgG level in Sample Diluent NS.

Interpolated rat IgG value are graphed.

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