abcam

Product datasheet

Protein A ELISA Kit ab215542

SimpleStep ELISA

5 Images

Overview

Product name

Detection method

Precision

Protein A ELISA Kit

Colorimetric

SD CV% Sample n Mean 5 3.7% Overall

Inter-assay

Intra-assay

Sample	n	Mean	SD	CV%
Overall	3			10.2%

Sample type Cell culture supernatant Assay type Sandwich (quantitative)

Sensitivity 3.7 pg/ml

Range 7.8 pg/ml - 500 pg/ml

Assay time 1h 30m

Assay duration One step assay

Product overview Protein A ELISA Kit (ab215542) is a single-wash 90 min sandwich ELISA designed for the

quantitative measurement of Protein A protein in cell culture supernatant. It uses our proprietary

SimpleStep ELISA® technology. Quantitate Protein A with 3.7 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 SimpleStep ELISA® kits.

Notes Protein A (Staphylococcus aureus Protein A) is a 42 kDa protein that is characterized by its ability to bind the Fc portion of immunoglobulins.

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 Pre-coated microplate (12 x 8 well strips)

Properties

Storage instructions

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

Components	1 x 96 tests
10X Protein A Capture Antibody	1 x 600µl
10X Protein A 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
Antibody Diluent 4BC	1 x 6ml
Plate Seals	1 unit
Protein A Lyophilized Recombinant Protein	2 vials
Sample Diluent NS (ab193972)	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

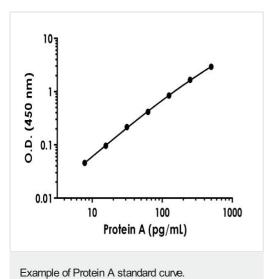
Relevance

Protein A is a surface protein of S.aureus which binds IgG molecules by their Fc region. In serum, the bacteria will bind IgG molecules in the wrong orientation on their surface which hinders opsonization and phagocytosis. Mutants of S. aureus lacking protein A are more efficiently phagocytosed in vitro, and mutants in infection models have diminished virulence. Due to its affinity for the Fc region of many mammalian immunoglobulins, protein A is considered a universal reagent in biochemistry and immunology.

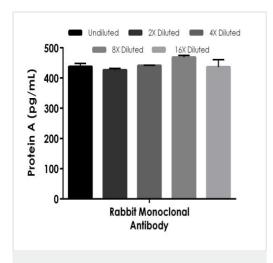
Cellular localization

Secreted; cell wall.

Images

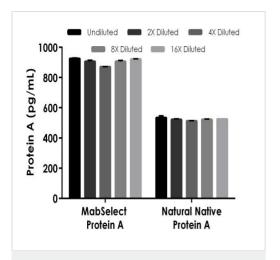


Background-subtracted data values (mean +/- SD) are graphed.



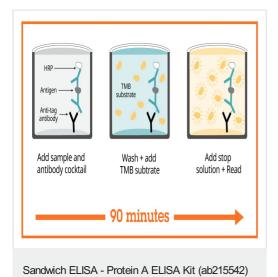
The concentrations of Protein A were measured in duplicate and interpolated from the Protein A standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Protein A concentration was determined to be 442 pg/mL in the Rabbit Monoclonal Antibody sample.

Interpolated concentrations of Protein A in Rabbit Monoclonal Antibody Protein A purified sample based on a 100 µg/mL antibody load.

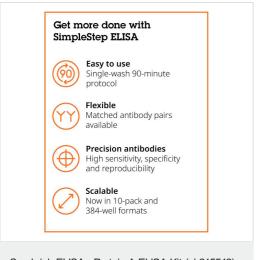


Interpolated dilution factor corrected values are plotted (mean +/-SD, n=2).

MabSelect Protein A and natural native Protein A were measured in duplicate and interpolated from the recombinant Protein A standard curve and corrected for sample dilution.



SimpleStep ELISA technology allows the formation of the antibodyantigen 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.



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

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