

### Human GBP1 ELISA Kit ab270897

Recombinant SimpleStep ELISA<sup>®</sup>

[5 Images](#)

#### Overview

**Product name** Human GBP1 ELISA Kit

**Detection method** Colorimetric

**Precision**

Intra-assay

Sample	n	Mean	SD	CV%
Plasma	8			8.3%

Inter-assay

Sample	n	Mean	SD	CV%
Plasma	3			8.7%

**Sample type** Hep Plasma, Cit plasma

**Assay type** Sandwich (quantitative)

**Sensitivity** 24.09 pg/ml

**Range** 109.38 pg/ml - 7000 pg/ml

**Recovery**

Sample specific recovery

Sample type	Average %	Range
Hep Plasma	85	82% - 87%
Cit plasma	99	91% - 104%

**Assay time** 1h 30m

**Assay duration** One step assay

**Species reactivity** **Reacts with:** Human

**Product overview** Human GBP1 ELISA kit (ab270897) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of GBP1 protein in human citrate and heparin plasma. It uses our proprietary SimpleStep ELISA<sup>®</sup> technology. Quantitate human GBP1 with 24.09 ng/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** Human Guanylate-binding protein 1 (GBP1) is a 67 kDa GTPase. Protein expression is induced by response to interferon gamma. GBP1 hydrolyzes GTP to GMP in 2 consecutive cleavage reactions. It has been reported to have antiviral activity against the influenza virus. In addition, GBP1 has been shown to promote oxidative killing and delivery of antimicrobial peptides the autophagolysosomes, providing broad host protection against different pathogen classes. Human GBP1 shares 69%, 72%, 22% sequence identity with mouse, rat, and cow, respectively.

**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 Human GBP1 Capture Antibody	1 x 600µl
10X Human GBP1 Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent CPI - HAMA Blocker (ab193969)	1 x 6ml
Human GBP1 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** Binds GTP, GDP and GMP.

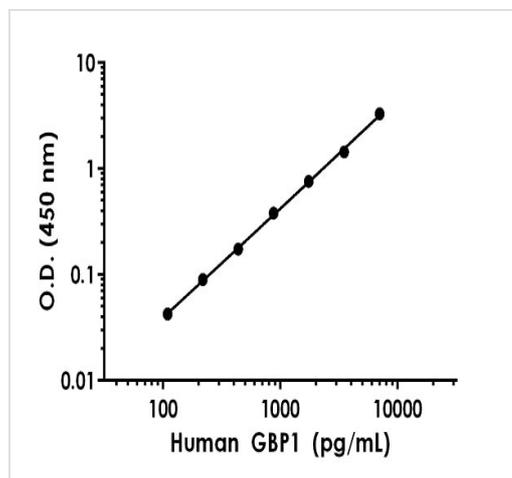
**Sequence similarities**

Belongs to the GBP family.

**Cellular localization**

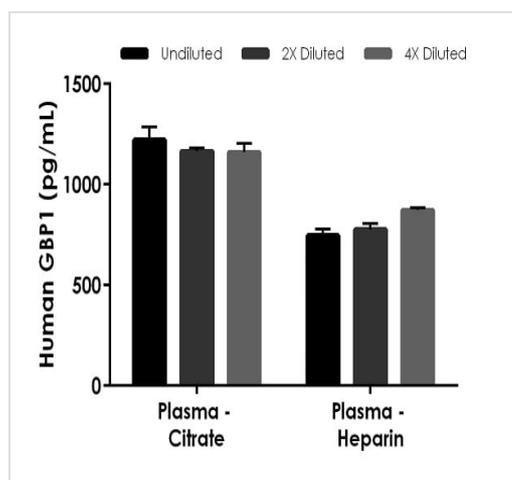
Cell membrane.

## Images



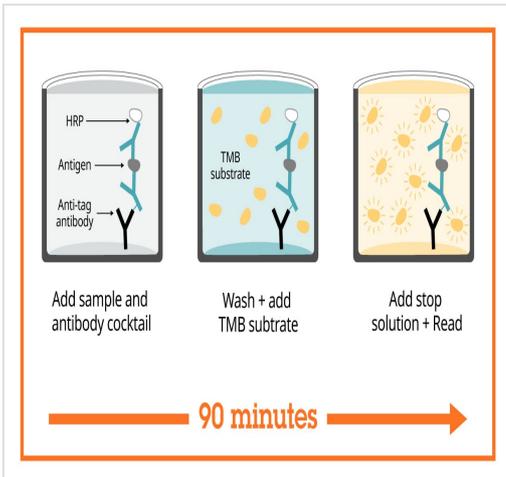
Example of human GBP1 standard curve in Sample Diluent NS.

The GBP1 standard curve was prepared as described in Section 10. Raw data values are shown in the table. Background-subtracted data values (mean +/- SD) are graphed.



Interpolated concentrations of native GBP1 in human plasma samples.

The concentrations of GBP1 were measured in duplicates, interpolated from the GBP1 standard curves and corrected for sample dilution. Undiluted samples are as follows: plasma (citrate) 50% and plasma (heparin) 100%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean GBP1 concentration was determined to be 1182.48 pg/mL in plasma (citrate) and 789.88 pg/mL in and plasma (heparin).



Sandwich ELISA - Human GBP1 ELISA Kit  
(ab270897)

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.

Powered by recombinant antibodies

<p><b>Research with confidence</b> Consistent and reproducible results</p>	<p><b>Long-term and scalable supply</b> Recombinant technology</p>
<p><b>Success from the first experiment</b> Confirmed specificity</p>	<p><b>Ethical standards compliant</b> Animal-free production</p>

Sandwich ELISA - Human GBP1 ELISA Kit  
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To learn more about the advantages of recombinant antibodies see [here](#).

**Get more done with SimpleStep ELISA**



**Easy to use**  
Single-wash 90-minute protocol



**Flexible**  
Matched antibody pairs available



**Precision antibodies**  
High sensitivity, specificity and reproducibility



**Scalable**  
Now in 10-pack and 384-well formats

Sandwich ELISA - Human GBP1 ELISA Kit  
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To learn more about the advantages of SimpleStep ELISA<sup>®</sup> kits see [here](#).

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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