

### Human Arginase 1 ELISA Kit ab230930

Recombinant SimpleStep ELISA®

[3 References](#) [5 Images](#)

#### Overview

<b>Product name</b>	Human Arginase 1 ELISA Kit										
<b>Detection method</b>	Colorimetric										
<b>Precision</b>	Intra-assay										
	<table border="1"> <thead> <tr> <th>Sample</th> <th>n</th> <th>Mean</th> <th>SD</th> <th>CV%</th> </tr> </thead> <tbody> <tr> <td>Tissue</td> <td>8</td> <td></td> <td></td> <td>2.2%</td> </tr> </tbody> </table>	Sample	n	Mean	SD	CV%	Tissue	8			2.2%
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	Inter-assay										
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Sample	n	Mean	SD	CV%							
Tissue	3			4.4%							
<b>Sample type</b>	Tissue Extracts										
<b>Assay type</b>	Sandwich (quantitative)										
<b>Sensitivity</b>	17.77 pg/ml										
<b>Range</b>	187.5 pg/ml - 12000 pg/ml										
<b>Recovery</b>	Sample specific recovery										
	<table border="1"> <thead> <tr> <th>Sample type</th> <th>Average %</th> <th>Range</th> </tr> </thead> <tbody> <tr> <td>Tissue Extracts</td> <td>103</td> <td>99% - 107%</td> </tr> </tbody> </table>	Sample type	Average %	Range	Tissue Extracts	103	99% - 107%				
Sample type	Average %	Range									
Tissue Extracts	103	99% - 107%									
<b>Assay time</b>	1h 30m										
<b>Assay duration</b>	One step assay										
<b>Species reactivity</b>	<b>Reacts with:</b> Human										
<b>Product overview</b>	Human Arginase 1 ELISA Kit (ab230930) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of Arginase 1 protein in tissue extracts. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human Arginase 1 with 17.77 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** 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 Human Arginase 1 Capture Antibody	1 x 600µl
10X Human Arginase 1 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 4BI	1 x 6ml
Human Arginase 1 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

**Pathway** Nitrogen metabolism; urea cycle; L-ornithine and urea from L-arginine: step 1/1.

**Involvement in disease** Defects in ARG1 are the cause of argininemia (ARGIN) [MIM:207800]; also known as

hyperargininemia. Argininemia is a rare autosomal recessive disorder of the urea cycle. Arginine is elevated in the blood and cerebrospinal fluid, and periodic hyperammonemia occurs. Clinical manifestations include developmental delay, seizures, mental retardation, hypotonia, ataxia, progressive spastic quadriplegia.

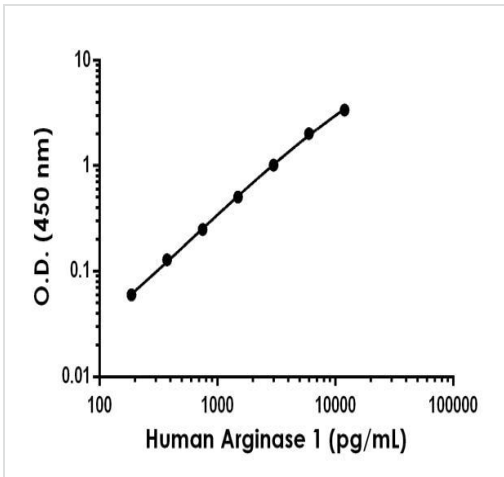
**Sequence similarities**

Belongs to the arginase family.

**Cellular localization**

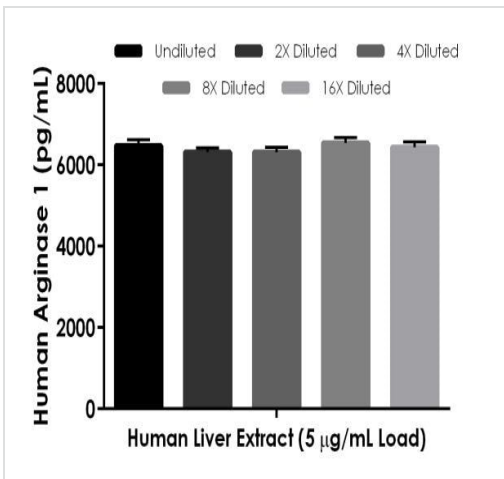
Cytoplasm.

**Images**



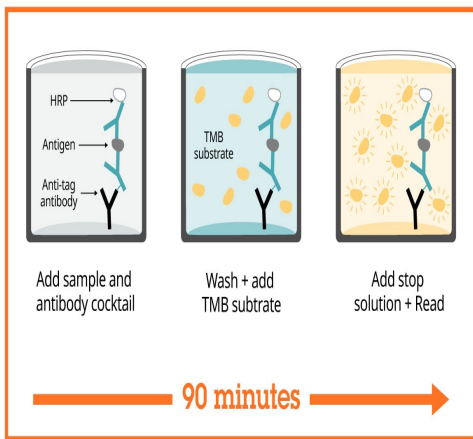
Background-subtracted data values (mean +/- SD) are graphed.

Example of human Arginase 1 standard curve in 1X Cell Extraction Buffer PTR.



The concentrations of Arginase 1 were measured in duplicate and interpolated from the Arginase 1 standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Arginase 1 concentration was determined to be 6383.5 pg/mL in 5 µg/mL liver extract.

Interpolated concentrations of native Arginase 1 in human liver extract based on a 5 µg/mL extract load.



Sandwich ELISA - Human Arginase 1 ELISA Kit  
(ab230930)

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

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

Sandwich ELISA - Human Arginase 1 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 Arginase 1 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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