

Product datasheet

Human Myoglobin ELISA Kit ab171580

Recombinant SimpleStep ELISA

[6 Images](#)

Overview

Product name Human Myoglobin ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
homogenate	5			2%

Inter-assay

Sample	n	Mean	SD	CV%
homogenate	3			2%

Sample type

Cell culture supernatant, Urine, Serum, Plasma, Cell culture extracts, Tissue Extracts

Assay type

Sandwich (quantitative)

Sensitivity

270 pg/ml

Range

1.25 ng/ml - 80 ng/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Urine	75	67% - 81%
Serum	103	83% - 115%
Tissue Extracts	111	105% - 118%
Cell culture media	101	81% - 113%
Hep Plasma	89	86% - 92%
EDTA Plasma	98	90% - 110%

Sample type	Average %	Range
Cit plasma	99	82% - 108%

Assay time

1h 30m

Assay duration

One step assay

Species reactivity

Reacts with: Human

Product overview

Human Myoglobin ELISA kit (ab171580) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of Myoglobin protein in human serum, plasma, urine, cell culture supernatant, cell and tissue extracts. It uses our proprietary SimpleStep ELISA® technology. Quantitate human myoglobin with 270 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

Myoglobin, a heme protein is found in both cardiac and skeletal muscle and functions as a reserve supply of oxygen by facilitating the movement of oxygen within muscles. Damage to either type of muscle following conditions such as trauma, ischemia, and diseases that cause myopathy, is associated with the release of myoglobin into serum. Specifically, following cardiac necrosis associated with myocardial infarction (MI), myoglobin is one of the first markers to rise above normal levels. Myoglobin levels increase measurably above baseline within 2-4 hours post-infarct, peaking at 9-12 hours, and returning to baseline within 24-36 hours.

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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.

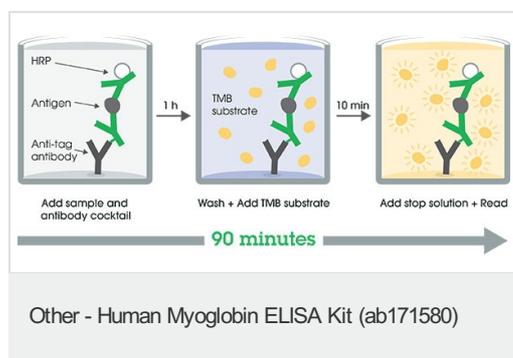
Components	1 x 96 tests
10X Wash Buffer PT (ab206977)	1 x 20ml

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

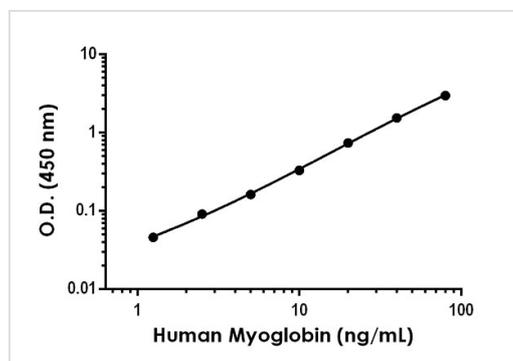
Function Serves as a reserve supply of oxygen and facilitates the movement of oxygen within muscles.

Sequence similarities Belongs to the globin family.

Images

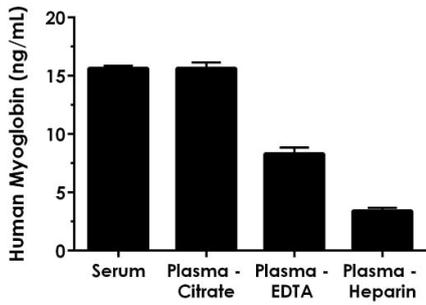


SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



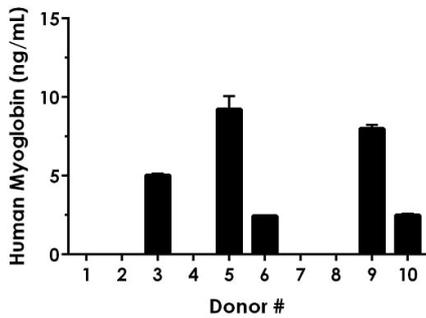
Example of human Myoglobin standard curve in Sample Diluent NS.

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



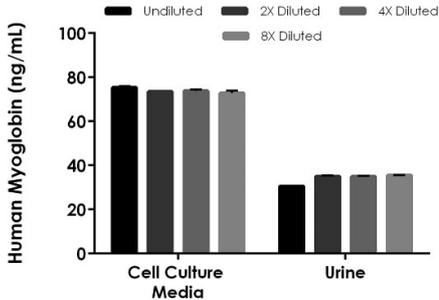
Interpolated concentrations of native Myoglobin in human serum and plasma samples.

The concentrations of Myoglobin were measured in duplicates, interpolated from the Myoglobin standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 25%, plasma (heparin) 25%, plasma (citrate) 25%, plasma (EDTA) 25%. The interpolated dilution factor corrected values are plotted (mean \pm SD, n=2). The mean Myoglobin concentration was determined to be 15.8 ng/mL in serum, 15.6 ng/mL in plasma (citrate), 8.3 ng/mL in plasma (EDTA) and 3.4 ng/mL in plasma (heparin).



Serum from ten individual healthy human female donors was measured in duplicate.

Interpolated dilution factor corrected values are plotted (mean \pm SD, n=2). 5 of 10 donors were below the detectable dose. The mean Myoglobin concentration was determined to be 5.4 ng/mL with a range of ND – 9.8 ng/mL.



Interpolated concentrations of spike Myoglobin in human cell culture media and urine samples.

The concentrations of Myoglobin were measured in duplicates, interpolated from the Myoglobin standard curves and corrected for sample dilution. Undiluted samples are as follows: cell culture media 25% and urine 25%. The interpolated dilution factor corrected values are plotted (mean \pm SD, n=2).

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recombinant antibodies



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Consistent and reproducible results



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Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Sandwich ELISA - Human Myoglobin ELISA Kit
(ab171580)

To learn more about the advantages of recombinant antibodies see [here](#).

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