

Mouse eNOS ELISA Kit ab230938

Recombinant SimpleStep ELISA

2 References 4 Images

Overview

| | | | | | |
|--------------------|---|---|-----------|----|-------------|
| Product name | Mouse eNOS ELISA Kit | | | | |
| Detection method | Colorimetric | | | | |
| Precision | Intra-assay | | | | |
| | Sample | n | Mean | SD | CV% |
| | bEnd.3 cells | 9 | | | 5% |
| | Inter-assay | | | | |
| | Sample | n | Mean | SD | CV% |
| | bEnd.3 cells | 3 | | | 5.04% |
| Sample type | Cell culture extracts, Tissue Extracts, Mouse brain extract, Mouse muscle extract | | | | |
| Assay type | Sandwich (quantitative) | | | | |
| Sensitivity | 5.58 pg/ml | | | | |
| Range | 62.5 pg/ml - 4000 pg/ml | | | | |
| Recovery | Sample specific recovery | | | | |
| | Sample type | | Average % | | Range |
| | Cell culture extracts | | 102 | | 101% - 103% |
| | Tissue Extracts | | 96 | | 95% - 98% |
| | Mouse brain extract | | 96 | | 95% - 97% |
| | Mouse muscle extract | | 106 | | 102% - 108% |
| Assay time | 1h 30m | | | | |
| Assay duration | One step assay | | | | |
| Species reactivity | Reacts with: Mouse | | | | |

Product overview

Mouse eNOS ELISA Kit (ab230938) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of eNOS protein in tissue extracts, mouse brain extract, mouse muscle extract, and cell culture extracts. It uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse eNOS with 5.58 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 Mouse eNOS Capture Antibody | 1 x 600µl |
| 10X Mouse eNOS Detector Antibody | 1 x 600µl |
| 10X Wash Buffer PT (ab206977) | 1 x 20ml |
| 5X Cell Extraction Buffer PTR (ab193970) | 1 x 10ml |
| Antibody Diluent CPR | 1 x 6ml |
| Mouse eNOS 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 |
| | |

| Components | 1 x 96 tests |
|--------------------------|--------------|
| Stop Solution | 1 x 12ml |
| TMB Development Solution | 1 x 12ml |

Function

Produces nitric oxide (NO) which is implicated in vascular smooth muscle relaxation through a cGMP-mediated signal transduction pathway. NO mediates vascular endothelial growth factor (VEGF)-induced angiogenesis in coronary vessels and promotes blood clotting through the activation of platelets.

Isoform eNOS13C: Lacks eNOS activity, dominant-negative form that may down-regulate eNOS activity by forming heterodimers with isoform 1.

Tissue specificity

Platelets, placenta, liver and kidney.

Involvement in disease

Variation in NOS3 seem to be associated with susceptibility to coronary spasm.

Sequence similarities

Belongs to the NOS family.

Contains 1 FAD-binding FR-type domain.

Contains 1 flavodoxin-like domain.

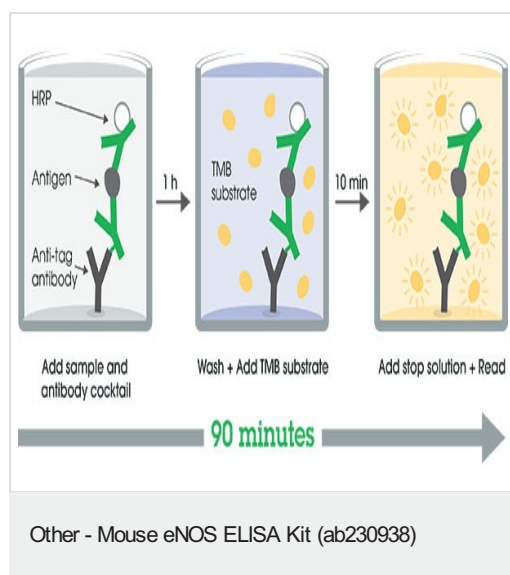
Post-translational modifications

Phosphorylation by AMPK at Ser-1177 in the presence of Ca(2+)-calmodulin (CaM) activates activity. In absence of Ca(2+)-calmodulin, AMPK also phosphorylates Thr-495, resulting in inhibition of activity (By similarity). Phosphorylation of Ser-114 by CDK5 reduces activity.

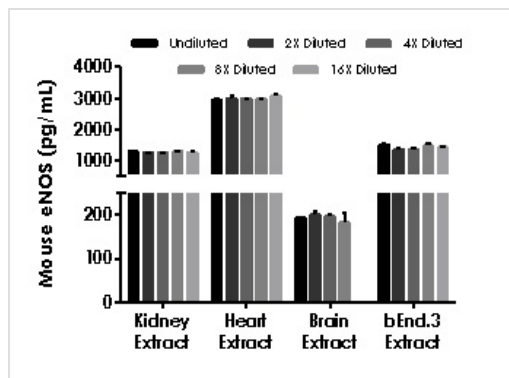
Cellular localization

Cell membrane. Membrane, caveola. Cytoplasm, cytoskeleton. Golgi apparatus. Specifically associates with actin cytoskeleton in the G2 phase of the cell cycle and which is favored by interaction with NOSIP and results in a reduced enzymatic activity.

Images

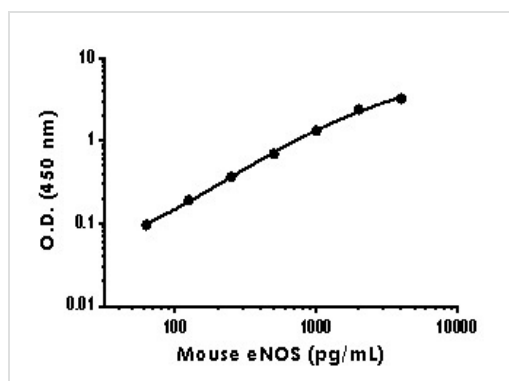


SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



Interpolated concentrations of native eNOS in mouse kidney extract, heart extract, brain extract, and bEnd.3 cell extract samples

The concentrations of eNOS were measured in duplicates, interpolated from the eNOS standard curves and corrected for sample dilution. Undiluted samples are as follows: kidney extract 1,000 µg/mL, heart extract 1,000 µg/mL, brain extract 250 µg/mL, and bEnd.3 extract 25 µg/mL. The interpolated dilution factor corrected values are plotted (mean \pm SD, n=2). The mean eNOS concentration in the undiluted samples was determined to be 1,259 pg/mL in kidney extract, 2,998 pg/mL in heart extract, 194 pg/mL in brain extract, and 1,419 pg/mL in bEnd.3 cell extract.



Example of mouse eNOS standard curve in 1X Cell Extraction Buffer PTR

The eNOS 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.

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recombinant antibodies



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Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Sandwich ELISA - Mouse eNOS ELISA Kit
(ab230938)

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

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