

Product datasheet

Anti-eNOS antibody [M221] ab76198

★★★★★ [14 Abreviews](#) [143 References](#) [4 Images](#)

Overview

| | |
|----------------------------|---|
| Product name | Anti-eNOS antibody [M221] |
| Description | Mouse monoclonal [M221] to eNOS |
| Host species | Mouse |
| Specificity | <p>ab76198 is not predicted to react with other NOS family members due to low homology.</p> <p>This antibody detects eNOS in mouse and but at a lower intensity than in human. If you are working in mouse, we would recommend using no more than 1% milk as the blocking agent for optimal signal strength.</p> |
| Tested applications | <p>Suitable for: IHC-P, ICC/IF, WB</p> <p>Unsuitable for: Flow Cyt (Intra)</p> |
| Species reactivity | Reacts with: Mouse, Human |
| Immunogen | Recombinant fragment corresponding to Mouse eNOS aa 1024-1202 (C terminal). Database link: P70313 |
| Positive control | Human umbilical vein endothelial cells untreated and treated with lambda phosphatase. Mouse placenta lysate. Huvec lysate. IHC-P: FFPE human normal placenta tissue sections. |
| General notes | <p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p> |

Properties

| | |
|-----------------------------|---|
| Form | Liquid |
| Storage instructions | Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C. |
| Storage buffer | Preservative: 0.05% Sodium azide Constituents: 0.1% BSA, 50% Glycerol, PBS |
| Purity | Protein A purified |
| Clonality | Monoclonal |

Clone number M221
Isotype IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab76198 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

| Application | Abreviews | Notes |
|-------------|------------|--|
| IHC-P | | 1/1000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. |
| ICC/IF | ★★★★★ (1) | Use at an assay dependent concentration. |
| WB | ★★★★★ (11) | 1/500 - 1/1000. Predicted molecular weight: 133 kDa. |

Application notes Is unsuitable for Flow Cyt (Intra).

Target

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.

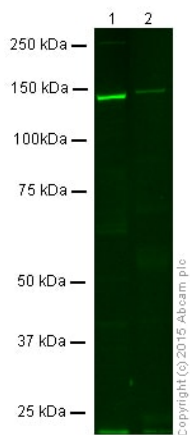
Involvement in disease Variation in NOS3 seem to be associated with susceptibility to coronary spasm.

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



Western blot - Anti-eNOS antibody [M221]
(ab76198)

All lanes : Anti-eNOS antibody [M221] (ab76198) at 1/500 dilution

Lane 1 : Huvec cell lysates

Lane 2 : Mouse placenta lysates

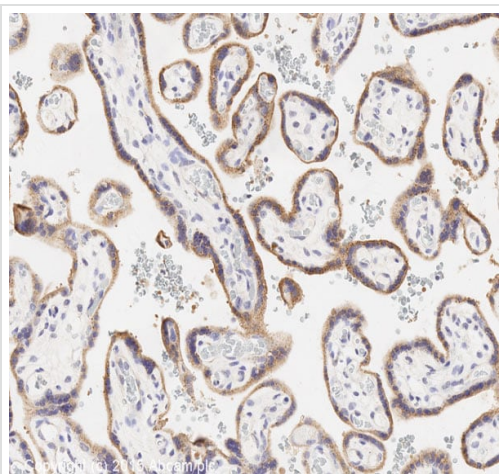
Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat anti Mouse IR680 at 1/10000 dilution

Predicted band size: 133 kDa

This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using Licor blocking buffer before being incubated with ab76198 overnight at 4°C. Antibody binding was detected using Goat anti Mouse IR680 at a 1:10,000 dilution for 1hr at room temperature and then imaged using the Licor Odyssey CLx.

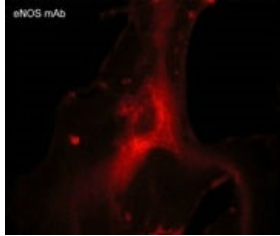


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-eNOS antibody [M221]
(ab76198)

IHC image of eNOS staining in human normal placenta*, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab76198, 1/1000 dilution, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre



Immunocytochemistry/ Immunofluorescence - Anti-eNOS antibody [M221] (ab76198)

ab76198 staining eNOS in human umbilical vein endothelial cells.
Cells with fixed with paraformaldehyde.



Western blot - Anti-eNOS antibody [M221] (ab76198)

All lanes : Anti-eNOS antibody [M221] (ab76198) at 1/1000 dilution

Lane 1 : human umbilical vein endothelial cells, untreated

Lane 2 : human umbilical vein endothelial cells, treated with lambda phosphatase

Predicted band size: 133 kDa

Observed band size: 140 kDa

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