

# Anti-SOD2/MnSOD (acetyl K68) antibody [EPVANR2] - BSA and Azide free ab218529

Recombinant RabMAb

[1 References](#) [7 Images](#)

### Overview

<b>Product name</b>	Anti-SOD2/MnSOD (acetyl K68) antibody [EPVANR2] - BSA and Azide free
<b>Description</b>	Rabbit monoclonal [EPVANR2] to SOD2/MnSOD (acetyl K68) - BSA and Azide free
<b>Host species</b>	Rabbit
<b>Specificity</b>	This antibody only detects SOD2/MnSOD when acetylated at Lysine 68. According to BLAST analysis, the antibody might cross-react with Fer (Uniprot P70451) isoform 3 in mouse samples. No experiment has been done to confirm this possibility.
<b>Tested applications</b>	<b>Suitable for:</b> Dot blot, WB, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	WB: Transfected 293T lysate. IHC-P: Human cervical carcinoma tissue and Human muscle tissue.
<b>General notes</b>	<p>ab218529 is the carrier-free version of <a href="#">ab137037</a>.</p> <p>This antibody was developed as part of a collaboration with the lab of David Guis at Vanderbilt University.</p> <p>Our <b>carrier-free</b> antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.</p> <p>This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.</p> <p>Use our <b>conjugation kits</b> for antibody conjugates that are ready-to-use in as little as 20 minutes with &lt;1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>This product is compatible with the Maxpar<sup>®</sup> Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar<sup>®</sup> is a trademark of Fluidigm Canada Inc.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"><li>- High batch-to-batch consistency and reproducibility</li><li>- Improved sensitivity and specificity</li><li>- Long-term security of supply</li></ul>

- Animal-free production

For more information [see here](#).

Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMAb<sup>®</sup> patents](#).

## Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C. Do Not Freeze.
<b>Storage buffer</b>	pH: 7.2 Constituent: PBS
<b>Carrier free</b>	Yes
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPVANR2
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our [Abpromise guarantee](#) covers the use of ab218529 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
<b>Dot blot</b>		1/1000.
<b>WB</b>		Use at an assay dependent concentration. Predicted molecular weight: 24 kDa.
<b>IHC-P</b>		Use at an assay dependent concentration. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See <a href="#">IHC antigen retrieval protocols</a> .

## Target

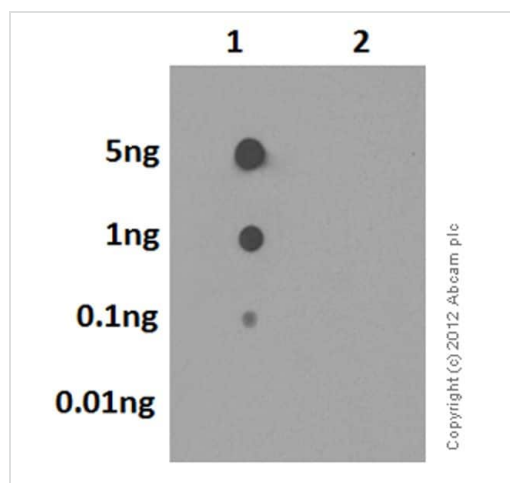
<b>Function</b>	Destroys superoxide anion radicals which are normally produced within the cells and which are toxic to biological systems.
<b>Involvement in disease</b>	Genetic variation in SOD2 is associated with susceptibility to microvascular complications of diabetes type 6 (MVCD6) [MIM:612634]. These are pathological conditions that develop in numerous tissues and organs as a consequence of diabetes mellitus. They include diabetic retinopathy, diabetic nephropathy leading to end-stage renal disease, and diabetic neuropathy. Diabetic retinopathy remains the major cause of new-onset blindness among diabetic adults. It is characterized by vascular permeability and increased tissue ischemia and angiogenesis.
<b>Sequence similarities</b>	Belongs to the iron/manganese superoxide dismutase family.
<b>Post-translational</b>	Nitrated under oxidative stress. Nitration coupled with oxidation inhibits the catalytic activity.

## modifications

### Cellular localization

Mitochondrion matrix.

## Images



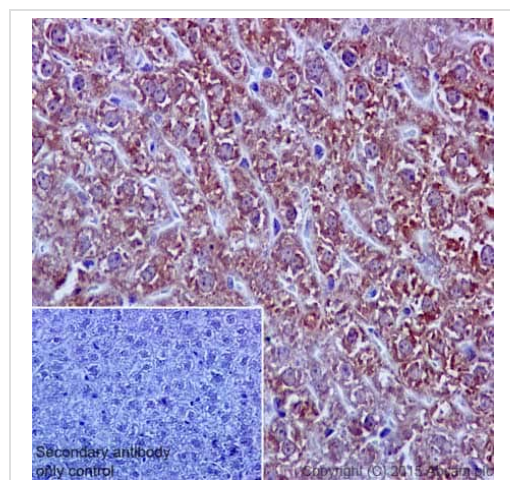
Dot Blot - Anti-SOD2/MnSOD (acetyl K68) antibody [EPVANR2] - BSA and Azide free (ab218529)

Dot blot analysis of SOD2 (acetyl K68) acetylated peptide (Lane 1), SOD2 Non-acetylated peptide (Lane 2), labelling SOD2 (acetyl K68) with [ab137037](#) at a dilution of 1/1000. Peroxidase conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody at a dilution of 1/2500.

Blocking and diluting buffer: 5% NFDN/TBST.

Exposure time: 3 minutes.

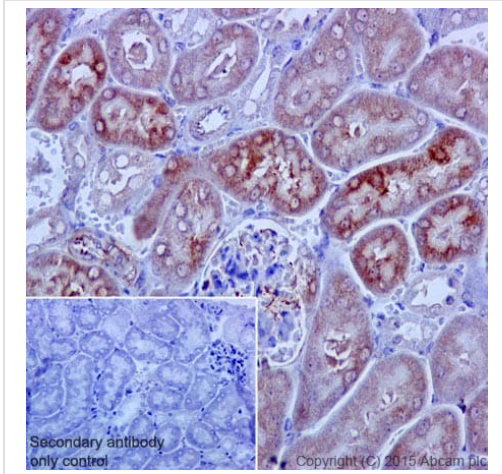
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab137037](#)).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOD2/MnSOD (acetyl K68) antibody [EPVANR2] - BSA and Azide free (ab218529)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat liver tissue labelling SOD2 (acetyl K68) with purified [ab137037](#) at 1/150. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. [ab97051](#), a goat anti-rabbit IgG H&L (HRP) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.

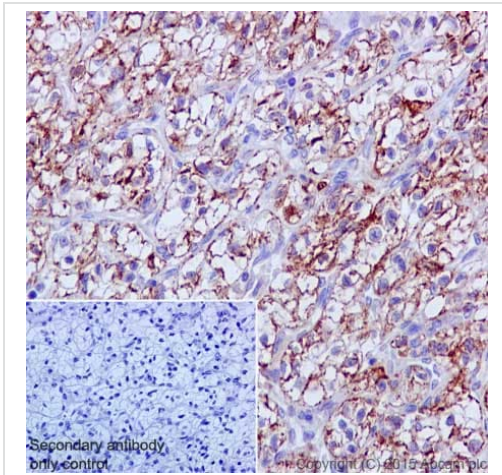
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab137037](#)).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse kidney tissue labelling SOD2 (acetyl K68) with purified **ab137037** at 1/150. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. **ab97051**, a goat anti-rabbit IgG H&L (HRP) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab137037**).

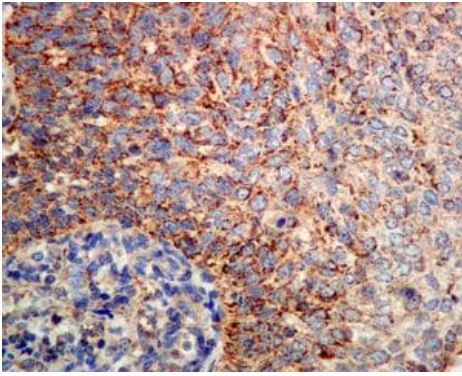
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOD2/MnSOD (acetyl K68) antibody [EPVANR2] - BSA and Azide free (ab218529)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human clear cell carcinoma kidney tissue labelling SOD2 (acetyl K68) with purified **ab137037** at 1/150. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. **ab97051**, a goat anti-rabbit IgG H&L (HRP) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab137037**).

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOD2/MnSOD (acetyl K68) antibody [EPVANR2] - BSA and Azide free (ab218529)

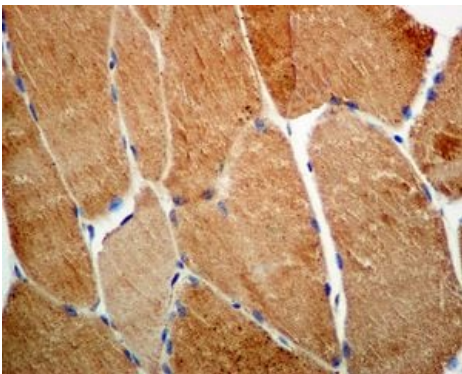


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOD2/MnSOD (acetyl K68) antibody [EPVANR2] - BSA and Azide free (ab218529)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human cervical carcinoma tissue labelling SOD2 (acetyl K68) with unpurified **ab137037** at 1/100 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab137037**).

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOD2/MnSOD (acetyl K68) antibody [EPVANR2] - BSA and Azide free (ab218529)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human muscle tissue labelling SOD2 (acetyl K68) with unpurified **ab137037** at 1/100 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab137037**).

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

### Why choose a recombinant antibody?



**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

Anti-SOD2/MnSOD (acetyl K68) antibody  
[EPVANR2] - BSA and Azide free (ab218529)

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

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