

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

Recombinant RabMAb

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

Overview

Product name	Anti-SOD2/MnSOD (acetyl K68) antibody [EPVANR2] - BSA and Azide free
Description	Rabbit monoclonal [EPVANR2] to SOD2/MnSOD (acetyl K68) - BSA and Azide free
Host species	Rabbit
Specificity	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.
Tested applications	Suitable for: Dot blot, WB, IHC-P
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Transfected 293T lysate. IHC-P: Human cervical carcinoma tissue and Human muscle tissue.
General notes	<p>ab218529 is the carrier-free version of ab137037.</p> <p>This antibody was developed as part of a collaboration with the lab of David Guis at Vanderbilt University.</p> <p>Our carrier-free 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 conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with <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[®] Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar[®] 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">- High batch-to-batch consistency and reproducibility- Improved sensitivity and specificity- Long-term security of supply

- Animal-free production

For more information [see here](#).

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

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPVANR2
Isotype	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
Dot blot		1/1000.
WB		Use at an assay dependent concentration. Predicted molecular weight: 24 kDa.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See IHC antigen retrieval protocols .

Target

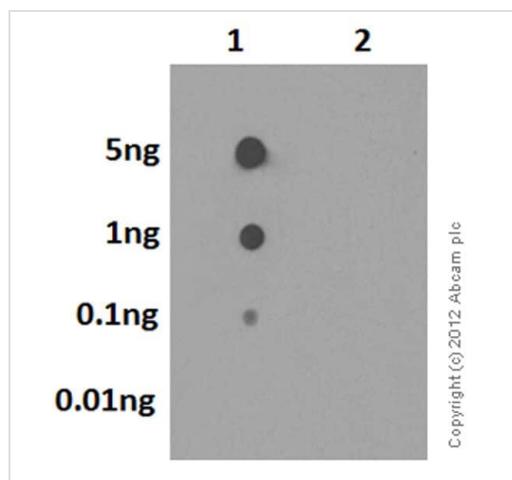
Function	Destroys superoxide anion radicals which are normally produced within the cells and which are toxic to biological systems.
Involvement in disease	Genetic variation in SOD2 is associated with susceptibility to microvascular complications of diabetes type 6 (MVCD6) [MIM:612634]. These are pathological 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.
Sequence similarities	Belongs to the iron/manganese superoxide dismutase family.
Post-translational	Nitrated under oxidative stress. Nitration coupled with oxidation inhibits the catalytic activity.

modifications

Cellular localization

Mitochondrion matrix.

Images



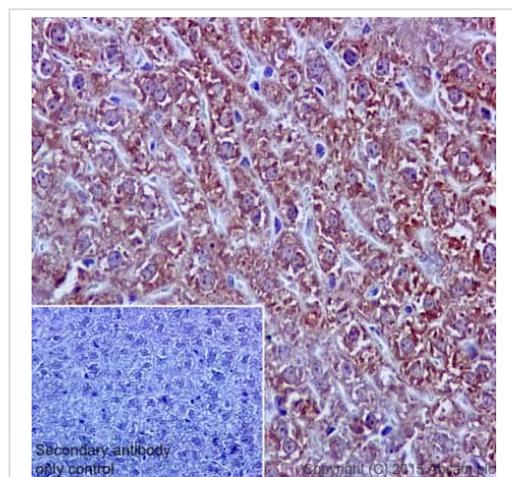
Dot Blot - Anti-SOD2/MnSOD (acetyl K68) antibody [EPVANR2] - BSA and Azide free (ab218529)

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.

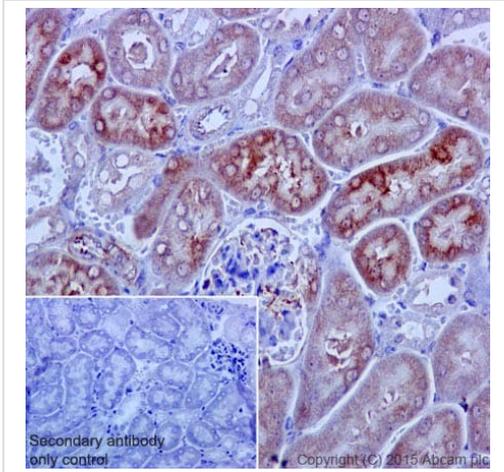
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab137037](#)).



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.

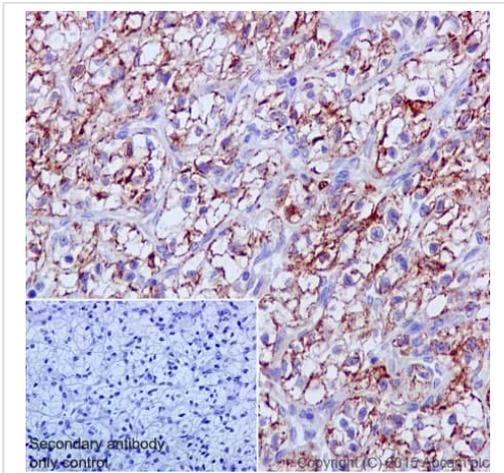
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab137037](#)).



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**).

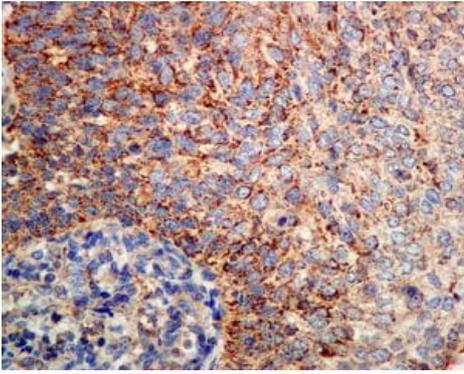
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOD2/MnSOD (acetyl K68) antibody [EPVANR2] - BSA and Azide free (ab218529)



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)

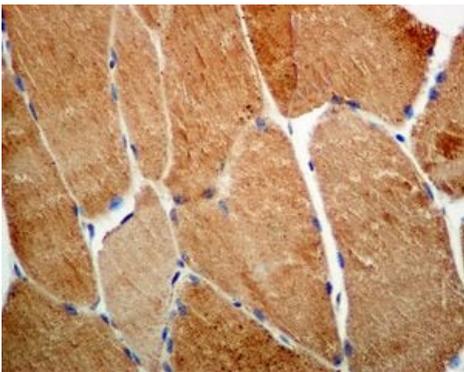


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOD2/MnSOD (acetyl K68) antibody [EPVANR2] - BSA and Azide free (ab218529)

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)

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