

Product datasheet

Anti-SOD2/MnSOD antibody ab13533

★★★★★ 26 Abreviews 116 References 6 Images

Overview

Product name	Anti-SOD2/MnSOD antibody
Description	Rabbit polyclonal to SOD2/MnSOD
Host species	Rabbit
Tested applications	Suitable for: ELISA, IHC-Fr, ICC/IF, IHC-P, WB, IP
Species reactivity	Reacts with: Mouse, Rat, Sheep, Rabbit, Chicken, Guinea pig, Hamster, Cow, Dog, Human, Pig, Xenopus laevis, Monkey, Gerbil
Immunogen	Full length protein corresponding to Human SOD2/MnSOD.
Positive control	Rat brain tissue extract.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	Preservative: 0.1% Sodium Azide Constituents: 50% Glycerol, PBS, pH 7
Purity	Immunogen affinity purified
Purification notes	This antibody was immunoaffinity purified.
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab13533** 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
ELISA		Use at an assay dependent concentration.
IHC-Fr		Use at an assay dependent concentration.

Application	Abreviews	Notes
ICC/IF	★★★★★	1/150.
IHC-P	★★★★★	Use at an assay dependent concentration.
WB	★★★★★	1/5000. Detects a band of approximately 25 kDa (predicted molecular weight: 26.6 kDa).
IP		Use a concentration of 10 µg/ml.

Target

Function Destroys superoxide anion radicals which are normally produced within the cells and which are toxic to biological systems.

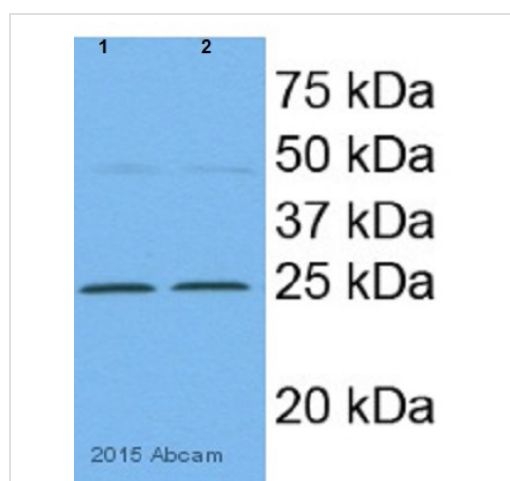
Involvement in disease Genetic variation in SOD2 is associated with susceptibility to microvascular complications of diabetes type 6 (MVCD6) [MIM:612634]. These are pathological conditions that develop in numerous tissues and organs as a consequence of diabetes mellitus. They include diabetic retinopathy, 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 modifications Nitrated under oxidative stress. Nitration coupled with oxidation inhibits the catalytic activity.

Cellular localization Mitochondrion matrix.

Images



Western blot - Anti-SOD2/MnSOD antibody (ab13533)

Image courtesy of anonymous abreviewer

All lanes : Anti-SOD2/MnSOD antibody (ab13533) at 1/5000 dilution

Lane 1 : mouse liver whole cell lysate

Lane 2 : mouse hepatocytes whole cell lysate

Secondary

All lanes : Goat anti-rabbit HRP conjugate at 1/20000 dilution

Developed using the ECL technique.

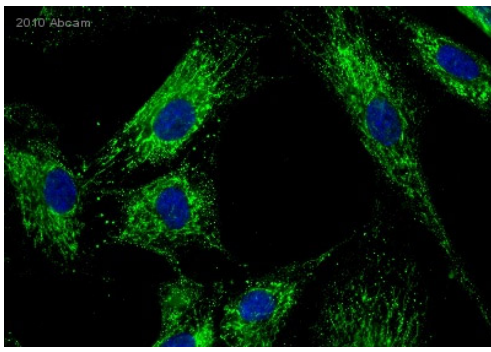
Performed under reducing conditions.

Predicted band size: 26.6 kDa

Observed band size: 24 kDa

[why is the actual band size different from the predicted?](#)

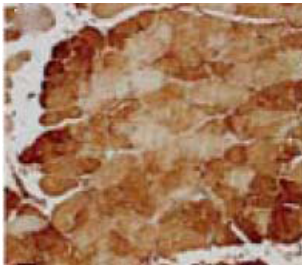
Exposure time: 15 seconds



Immunocytochemistry/ Immunofluorescence - Anti-SOD2/MnSOD antibody (ab13533)

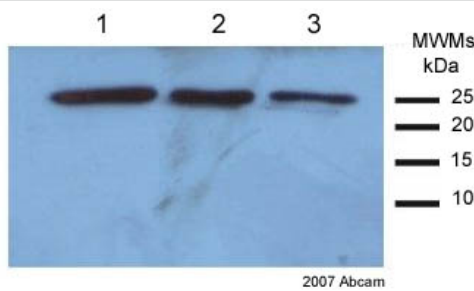
This image is courtesy of an Abreview submitted by Aurelien Bayot

ab13533 staining Superoxide Dismutase 2 in Human normal fibroblasts by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with formaldehyde and blocked with 1% BSA for 1 hour at 37°C. Samples were incubated with primary antibody (1/150 in 1% BSA) for 2 hours at 37°C. An undiluted Alexa Fluor®488-conjugated Donkey anti-rabbit IgG polyclonal was used as the secondary antibody. Nuclei were counterstained with DAPI.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOD2/MnSOD antibody (ab13533)

ab13533 at 1/100 dilution staining Superoxide Dismutase in rat muscle fibre tissue section by Immunohistochemistry (Bouin's fixative fixed paraffin-embedded tissue section). Antigen retrieval was done by microwave in citrate buffer. A goat anti-rabbit secondary was used at 1/10 dilution.



Western blot - Anti-SOD2/MnSOD antibody (ab13533)

This image is courtesy of an Abreview submitted by Dr sandra sobocanec

All lanes : Anti-SOD2/MnSOD antibody (ab13533) at 1/5000 dilution

Lane 1 : 2ug mouse liver homogenate supernatant

Lane 2 : 1ug mouse liver homogenate supernatant

Lane 3 : 0.5ug mouse liver homogenate supernatant

Secondary

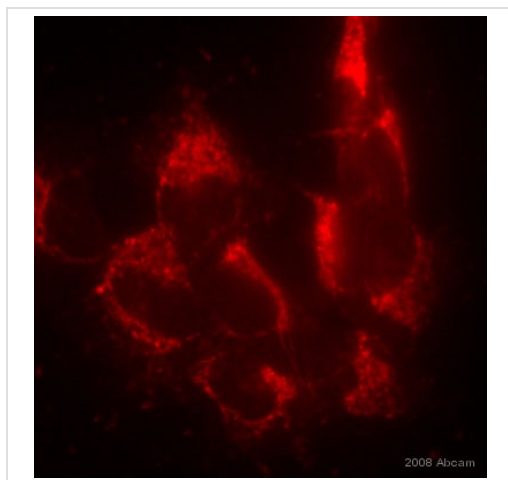
All lanes : HRP conjugated donkey anti-rabbit antibody

Performed under reducing conditions.

Predicted band size: 26.6 kDa

Observed band size: 25 kDa [why is the actual band size different from the predicted?](#)

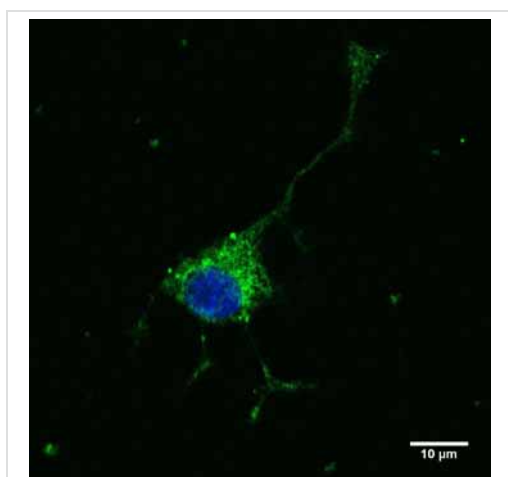
Exposure time: 10 seconds



Immunocytochemistry/ Immunofluorescence - Anti-SOD2/MnSOD antibody (ab13533)

This image is courtesy of an Abreview submitted by Dr jp lu

ab13533 staining Superoxide Dismutase 2 in human Hella cells by ICC/IF. Cells were acetone fixed and blocked in 5% serum for 1 hour at 24°C. The primary antibody was diluted 1/100 and incubated with the sample for 1 hour at 24°C. The secondary antibody used was Alexa Fluor®594 donkey anti-rabbit diluted at 1/100.



Immunocytochemistry/ Immunofluorescence - Anti-SOD2/MnSOD antibody (ab13533)

This image is courtesy of an Abreview submitted by Dr Anne Chiamello

ab13533 staining NGF-differentiated PC12 cells (rat) by ICC/IF. Cells were PFA fixed and permeabilized in 0.2% Triton X-100 prior to blocking in 10% serum for 1 hour at 25°C. The primary antibody was diluted to 2µg/ml in PBS and incubated with the sample for 1 hour at 25°C. An Alexa Fluor® 488 conjugated goat anti-rabbit antibody was used as the secondary.

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