

## Product datasheet

# Anti-Superoxide Dismutase 3/EC-SOD antibody ab21974

★★★★☆ [2 Abreviews](#) [12 References](#) [3 Images](#)

### Overview

---

<b>Product name</b>	Anti-Superoxide Dismutase 3/EC-SOD antibody
<b>Description</b>	Rabbit polyclonal to Superoxide Dismutase 3/EC-SOD
<b>Host species</b>	Rabbit
<b>Specificity</b>	Specific to human extracellular SOD (SOD3). Under reducing conditions the SOD3 antibody shows a major band at approximately 30kDa which is the approximate molecular weight of the SOD3 monomer and two faint minor bands at approximately 50 and 70 kDa. The SOD3 molecule is a homotetramer (4 monomers) with a combined molecular weight of around a 130 Kda. The two faint bands are probably dimers and triplicates of the monomer. This pattern is common with many tetramers (such as cellular glutathione peroxidase) as there is incomplete reduction with DTT.
<b>Tested applications</b>	<b>Suitable for:</b> IHC-P, IHC-Fr, WB
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Synthetic peptide corresponding to Human Superoxide Dismutase 3/EC-SOD (N terminal). Sequence: WTGEDSAEPNSDSA EWIRD <a href="#">Run BLAST with</a> <a href="#">Run BLAST with</a>
<b>Positive control</b>	IHC: cortex of Dementia patient with Lewy bodies WB: human lung lysate
<b>General notes</b>	<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&amp;As</p>

### Properties

---

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

<b>Storage buffer</b>	Preservative: 0.02% Thimerosal (merthiolate) Constituent: Whole serum
<b>Purity</b>	Whole antiserum
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

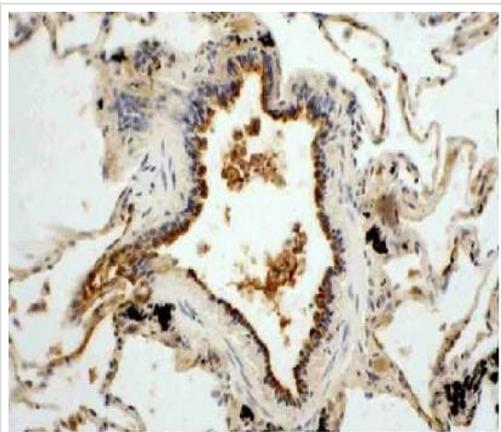
**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab21974 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P	★★★★★ (1)	Use at an assay dependent concentration.
IHC-Fr		1/200 - 1/2000.
WB	★★★★★ (1)	1/1000 - 1/4000. Detects a band of approximately 31 kDa (predicted molecular weight: 26 kDa).

## Target

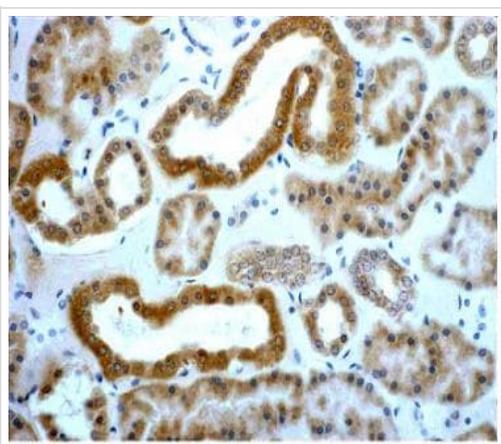
<b>Function</b>	Protect the extracellular space from toxic effect of reactive oxygen intermediates by converting superoxide radicals into hydrogen peroxide and oxygen.
<b>Tissue specificity</b>	Expressed in blood vessels, heart, lung, kidney and placenta. Major SOD isoenzyme in extracellular fluids such as plasma, lymph and synovial fluid.
<b>Sequence similarities</b>	Belongs to the Cu-Zn superoxide dismutase family.
<b>Cellular localization</b>	Secreted > extracellular space. 99% of EC-SOD is anchored to heparan sulfate proteoglycans in the tissue interstitium, and 1% is located in the vasculature in equilibrium between the plasma and the endothelium.

## Images



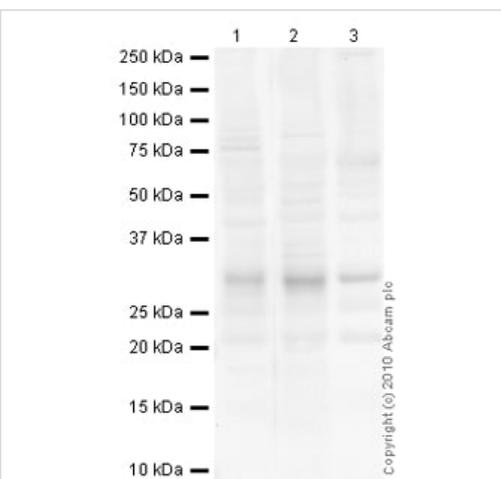
Immunohistochemistry (Frozen sections) - Anti-Superoxide Dismutase 3/EC-SOD antibody (ab21974)

ab21974 (1/1000) staining of ciliated bronchiolar cells in human lung.



Immunohistochemistry (Frozen sections) - Anti-Superoxide Dismutase 3/EC-SOD antibody (ab21974)

ab21974 (1/1000) staining of human kidney tubule cells.



Western blot - Anti-Superoxide Dismutase 3/EC-SOD antibody (ab21974)

**All lanes** : Anti-Superoxide Dismutase 3/EC-SOD antibody (ab21974) at 1/500 dilution

**Lane 1** : Lung (Human) Tissue Lysate

**Lane 2** : Human kidney tissue lysate - total protein ([ab30203](#))

**Lane 3** : Human placenta tissue lysate - total protein ([ab29745](#))

Lysates/proteins at 10 µg per lane.

### Secondary

**All lanes** : Goat Anti-Rabbit IgG H&L (HRP) preadsorbed ([ab97080](#)) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 26 kDa

**Observed band size:** 31 kDa

**Additional bands at:** 75 kDa. We are unsure as to the identity of these extra bands.

**Exposure time:** 30 seconds

Superoxide Dismutase 3 / EC-SOD contains a number of potential glycosylation sites (SwissProt) which may explain its migration at a higher molecular weight than predicted.

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

#### **Our Abpromise to you: Quality guaranteed and expert technical support**

---

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

#### **Terms and conditions**

---

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors