


## Product datasheet

### Anti-SOS1 antibody ab245645

3 Images

#### Overview

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<b>Product name</b>	Anti-SOS1 antibody
<b>Description</b>	Rabbit polyclonal to SOS1
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> IP, WB
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse 
<b>Immunogen</b>	Synthetic peptide within Human SOS1 aa 1283-1333. The exact sequence is proprietary. NP_005624.2 Database link: <a href="#">Q07889</a>
<b>Positive control</b>	WB: HeLa and HEK-293T whole cell lysate. IP: HeLa whole cell 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

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 6.8 Preservative: 0.09% Sodium azide Constituents: Tris buffered saline, 0.1% BSA
<b>Purity</b>	Immunogen affinity purified
<b>Purification notes</b>	ab245645 was affinity purified using an epitope specific to SOS1 immobilized on solid support.
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

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**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab245645 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
IP		Use at 2-5 µg/mg of lysate.
WB		1/2000 - 1/10000. Predicted molecular weight: 152 kDa.

## Target

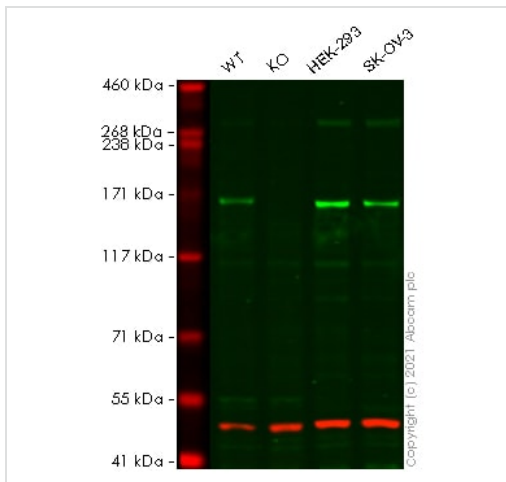
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<b>Function</b>	Promotes the exchange of Ras-bound GDP by GTP.
<b>Tissue specificity</b>	Expressed in gingival tissues.
<b>Involvement in disease</b>	<p>Defects in SOS1 are the cause of gingival fibromatosis 1 (GGF1) [MIM:135300]; also known as GINGF1. Gingival fibromatosis is a rare overgrowth condition characterized by a benign, slowly progressive, nonhemorrhagic, fibrous enlargement of maxillary and mandibular keratinized gingiva. GGF1 is usually transmitted as an autosomal dominant trait, although sporadic cases are common.</p> <p>Defects in SOS1 are the cause of Noonan syndrome type 4 (NS4) [MIM:610733]. NS4 is an autosomal dominant disorder characterized by dysmorphic facial features, short stature, hypertelorism, cardiac anomalies, deafness, motor delay, and a bleeding diathesis. It is a genetically heterogeneous and relatively common syndrome, with an estimated incidence of 1 in 1000-2500 live births. Rarely, NS4 is associated with juvenile myelomonocytic leukemia (JMML). SOS1 mutations engender a high prevalence of pulmonary valve disease; atrial septal defects are less common.</p>
<b>Sequence similarities</b>	<p>Contains 1 DH (DBL-homology) domain.</p> <p>Contains 1 N-terminal Ras-GEF domain.</p> <p>Contains 1 PH domain.</p> <p>Contains 1 Ras-GEF domain.</p>

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## Images

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Western blot - Anti-SOS1 antibody (ab245645)

**All lanes :** Anti-SOS1 antibody (ab245645) at 1/2000 dilution

**Lane 1 :** Wild-type A431 cell lysate

**Lane 2 :** SOS1 knockout A431 cell lysate

**Lane 3 :** HEK-293 cell lysate

**Lane 4 :** SK-OV-3 cell lysate

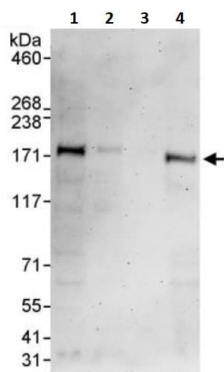
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

**Predicted band size:** 152 kDa

**Observed band size:** 171 kDa

False colour image of Western blot: Anti-SOS1 antibody staining at 1/2000 dilution, shown in green; Mouse anti-Alpha Tubulin [DM1A] ([ab7291](#)) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab245645 was shown to bind specifically to SOS1. A band was observed at 171 kDa in wild-type A431 cell lysates with no signal observed at this size in SOS1 knockout cell line [ab276087](#) (knockout cell lysate [ab283833](#)). To generate this image, wild-type and SOS1 knockout A431 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3 % milk in TBS-0.1 % Tween<sup>®</sup> 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L (IRDye<sup>®</sup> 800CW) preabsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye<sup>®</sup> 680RD) preabsorbed ([ab216776](#)) at 1/20000 dilution.



Western blot - Anti-SOS1 antibody (ab245645)

**All lanes :** Anti-SOS1 antibody (ab245645) at 0.04 µg/ml

**Lane 1 :** HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate at 50 µg

**Lane 2 :** HeLa whole cell lysate at 15 µg

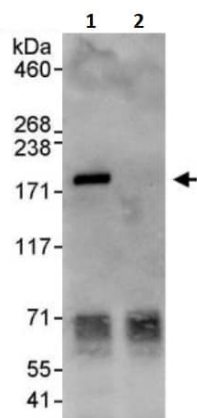
**Lane 3 :** HeLa whole cell lysate at 5 µg

**Lane 4 :** HEK-293T (Human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate at 50 µg

Developed using the ECL technique.

**Predicted band size:** 152 kDa

**Exposure time:** 3 minutes



Immunoprecipitation - Anti-SOS1 antibody (ab245645)

SOS1 was immunoprecipitated from HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate (1 mg per IP reaction; 20% of IP loaded).

ab245645 used for IP at 3 µg/mg lysate. For WB 1 µg/ml.

**Lane 1:** ab245645 IP in HeLa whole cell lysate.

**Lane 2:** Control IgG in HeLa whole cell lysate.

Chemiluminescence detection: 30 seconds.

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

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