


Product datasheet

Anti-SOS1 antibody [EPR7480] ab140621

KO **VALIDATED** Recombinant RabMAb

★★★★★ [3 Abreviews](#) [6 References](#) [11 Images](#)

Overview

Product name	Anti-SOS1 antibody [EPR7480]
Description	Rabbit monoclonal [EPR7480] to SOS1
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P, ICC/IF Unsuitable for: Flow Cyt or IP
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rat 
Immunogen	Recombinant fragment corresponding to Human SOS1 aa 1050-1200.
Positive control	Raji, K562, HeLa and THP1 cell lysates; Human ovarian carcinoma tissue; Raji cells.
General notes	<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 <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR7480

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab140621 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
WB	★★★★★ (1)	1/1000 - 1/10000. Predicted molecular weight: 152 kDa.
IHC-P	★★★★★ (2)	1/100 - 1/250. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC/IF		1/250 - 1/500.

Application notes

Is unsuitable for Flow Cyt or IP.

Target

Function

Promotes the exchange of Ras-bound GDP by GTP.

Tissue specificity

Expressed in gingival tissues.

Involvement in disease

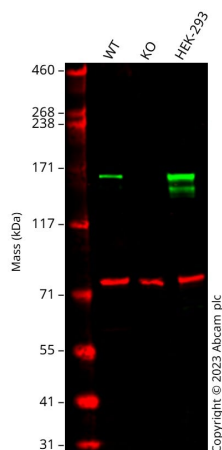
Defects in SOS1 are the cause of gingival fibromatosis 1 (GGF1) [MIM:135300]; also known as GINGF1. Gingival fibromatosis is a rare overgrowth condition characterized by a benign, slowly progressive, nonhemorrhagic, fibrous enlargement of maxillary and mandibular keratinized gingiva. GGF1 is usually transmitted as an autosomal dominant trait, although sporadic cases are common.

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.

Sequence similarities

Contains 1 DH (DBL-homology) domain.
Contains 1 N-terminal Ras-GEF domain.
Contains 1 PH domain.
Contains 1 Ras-GEF domain.

Images



Western blot - Anti-SOS1 antibody [EPR7480]
(ab140621)

All lanes : Anti-SOS1 antibody [EPR7480] (ab140621) at 1/1000 dilution

Lane 1 : Wild-type A549 cell lysate

Lane 2 : SOS1 knockout A549 cell lysate

Lane 3 : HEK-293 cell lysate

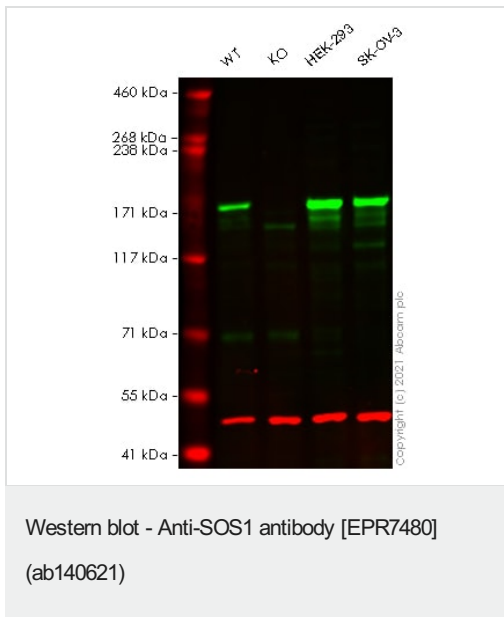
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 152 kDa

Observed band size: 165 kDa

Anti-SOS1 antibody [EPR7480] (ab140621) staining at 1/1000 dilution, shown in green; Mouse anti-CANX [CANX/1543] (**ab238078**) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab140621 was shown to bind specifically to SOS1. A band was observed at 165 kDa in wild-type A549 cell lysates with no signal observed at this size in SOS1 knockout cell line. To generate this image, wild-type and SOS1 knockout A549 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® 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 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution.



All lanes : Anti-SOS1 antibody [EPR7480] (ab140621) at 1/1000 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

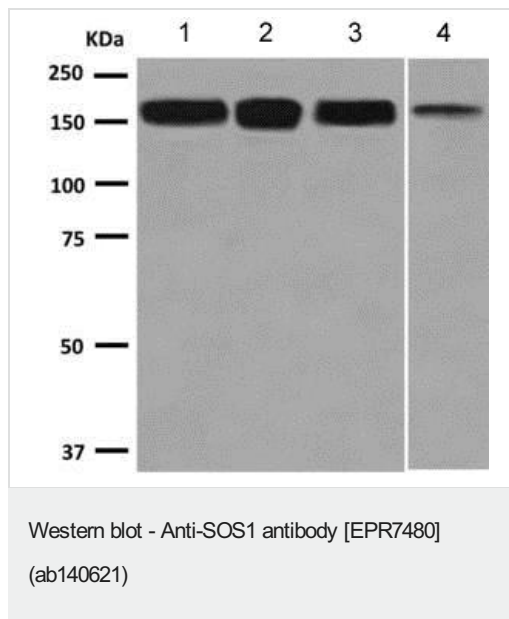
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 152 kDa

Observed band size: 171 kDa

False colour image of Western blot: Anti-SOS1 antibody [EPR7480] staining at 1/1000 dilution, shown in green; Mouse anti-Alpha Tubulin [DM1A] ([ab7291](#)) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab140621 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® 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® 800CW) preabsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ([ab216776](#)) at 1/20000 dilution.



All lanes : Anti-SOS1 antibody [EPR7480] (ab140621) at 1/1000 dilution

Lane 1 : Raji cell lysate

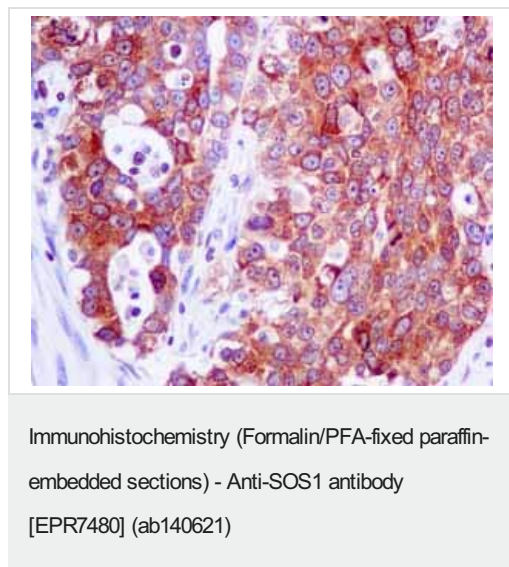
Lane 2 : K562 cell lysate

Lane 3 : HeLa cell lysate

Lane 4 : THP1 cell lysate

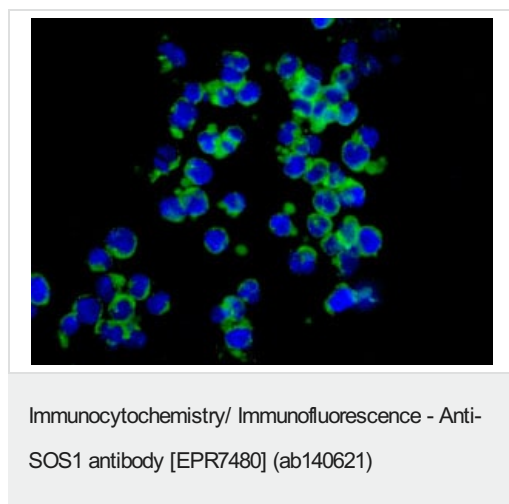
Lysates/proteins at 10 µg per lane.

Predicted band size: 152 kDa

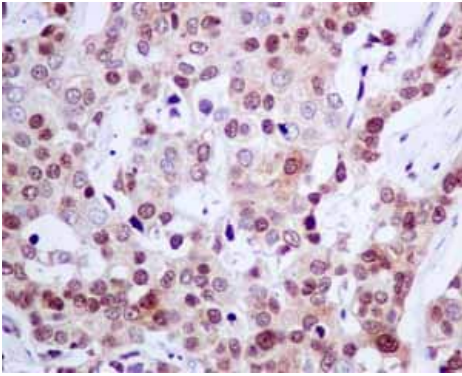


Immunohistochemical analysis of paraffin-embedded Human ovarian carcinoma tissue labelling SOS1 with ab140621 at 1/100 dilution.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



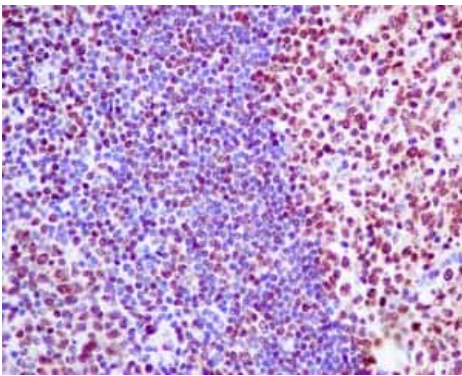
Immunofluorescent staining of Raji cells labelling SOS1 with ab140621 at 1/250 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOS1 antibody
[EPR7480] (ab140621)

Immunohistochemical analysis of paraffin embedded Human Breast carcinoma tissue using ab140621 showing +ve staining.

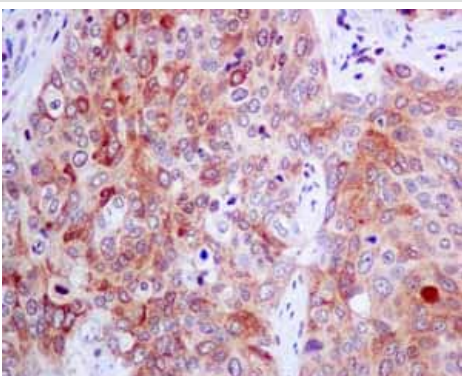
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOS1 antibody
[EPR7480] (ab140621)

Immunohistochemical analysis of paraffin embedded normal Human tonsil tissue using ab140621 showing +ve staining.

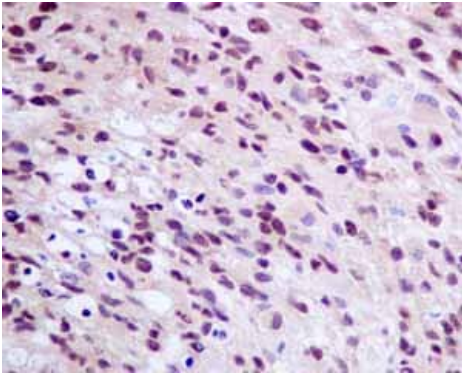
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOS1 antibody
[EPR7480] (ab140621)

Immunohistochemical analysis of paraffin embedded Human Lung adenocarcinoma tissue using ab140621 showing +ve staining.

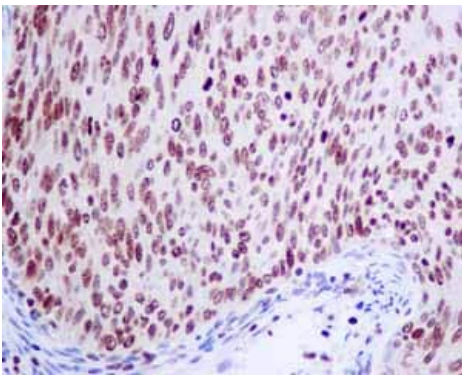
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOS1 antibody [EPR7480] (ab140621)

Immunohistochemical analysis of paraffin embedded Human Glioma tissue using ab140621 showing +ve staining.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOS1 antibody [EPR7480] (ab140621)

Immunohistochemical analysis of paraffin embedded Human Cervical carcinoma tissue using ab140621 showing +ve staining.

Perform heat mediated antigen retrieval with citrate buffer pH 6 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-SOS1 antibody [EPR7480] (ab140621)

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

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