abcam

Product datasheet

Anti-SOS1 antibody [EPR7480] - BSA and Azide free ab248908

KO VALIDATED Recombinant RabMAb

11 Images

Overview

Product name	Anti-SOS1 antibody [EPR7480] - BSA and Azide free
Description	Rabbit monoclonal [EPR7480] to SOS1 - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** ICC/IF, IHC-P, WB **Unsuitable for:** Flow Cyt or IP
Species reactivity	**Reacts with:** Human **Predicted to work with:** Mouse, Rat
Immunogen	Recombinant fragment within Human SOS1 aa 1050-1200. The exact sequence is proprietary. Database link: **Q07889**
Positive control	Raji, K562, HeLa and THP1 cell lysates; Human ovarian carcinoma tissue; Raji cells.
General notes	ab248908 is the carrier-free version of **ab140621**. 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. 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. 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. 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. This product is a recombinant monoclonal antibody, which offers several advantages including: - 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	EPR7480
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab248908 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
ICC/IF		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB		Use at an assay dependent concentration. Predicted molecular weight: 152 kDa.

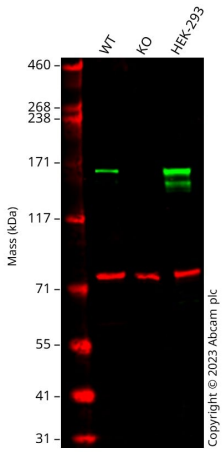
Application notes Is unsuitable for Flow Cyt or IP.

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] - BSA and Azide free (ab248908)

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

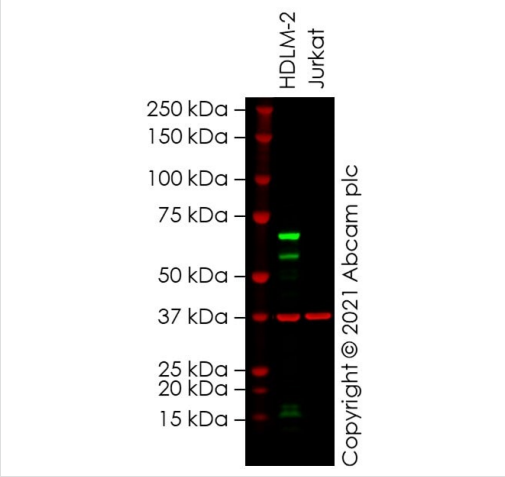
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 152 kDa
Observed band size: 165 kDa

This data was developed using **ab140621**, the same antibody clone in a different buffer formulation.

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.



Western blot - Anti-SOS1 antibody [EPR7480] - BSA and Azide free (ab248908)

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

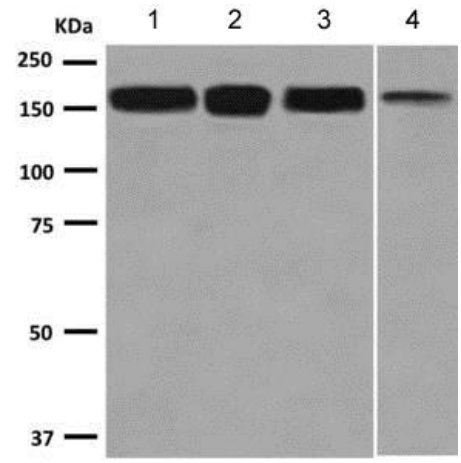
Lane 1 : Wild-type A431 cell lysate
Lane 2 : SOS1 knockout A431 cell lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 152 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 % Twee® 20 (TBS-T) before incubation with primary antibodies overnight at 4 Â°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.



Western blot - Anti-SOS1 antibody [EPR7480] - BSA and Azide free (ab248908)

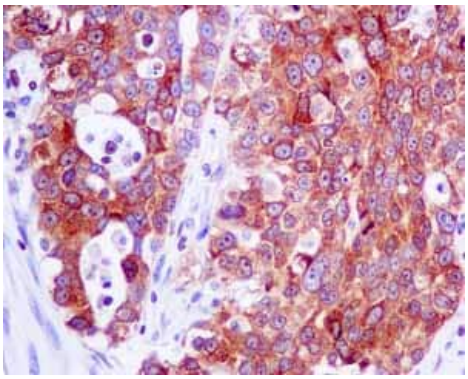
All lanes : Anti-SOS1 antibody [EPR7480] (**ab140621**) at 1/1000 dilution

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

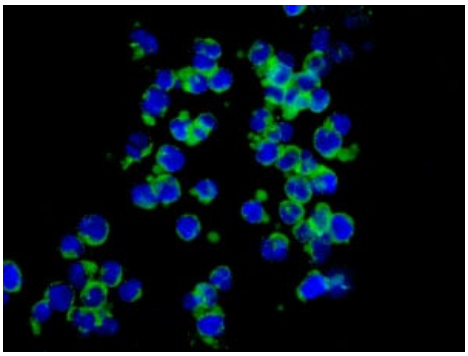
This data was developed using **ab140621**, the same antibody clone in a different buffer formulation.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOS1 antibody [EPR7480] - BSA and Azide free (ab248908)

This data was developed using **ab140621**, the same antibody clone in a different buffer formulation.

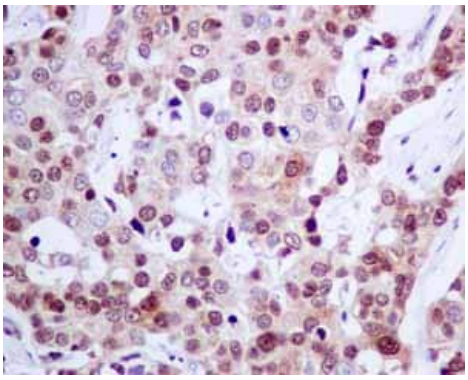
Immunohistochemical analysis of paraffin-embedded Human ovarian carcinoma tissue labelling SOS1 with **ab140621** at 1/100 dilution. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-SOS1 antibody [EPR7480] - BSA and Azide free (ab248908)

This data was developed using **ab140621**, the same antibody clone in a different buffer formulation.

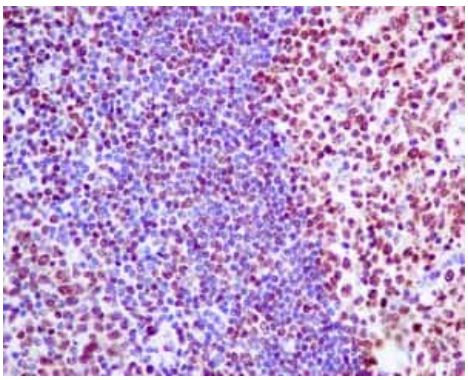
Immunofluorescent staining of Raji cells labelling SOS1 with **ab140621** at 1/250 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOS1 antibody [EPR7480] - BSA and Azide free (ab248908)

This data was developed using **ab140621**, the same antibody clone in a different buffer formulation.Immunohistochemical analysis of paraffin embedded Human Breast carcinoma tissue using **ab140621** showing +ve staining.

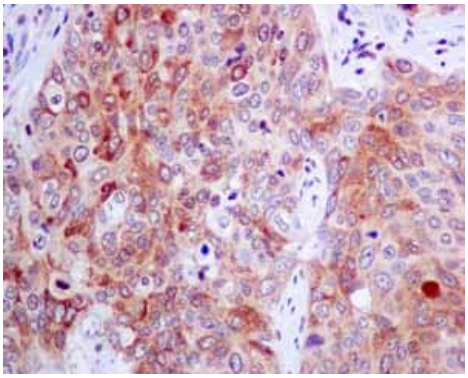
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOS1 antibody [EPR7480] - BSA and Azide free (ab248908)

This data was developed using **ab140621**, the same antibody clone in a different buffer formulation.Immunohistochemical analysis of paraffin embedded normal Human tonsil tissue using **ab140621** showing +ve staining.

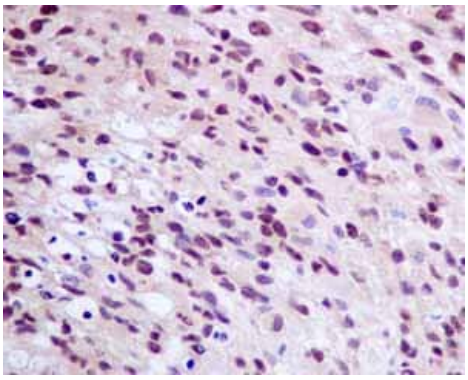
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOS1 antibody [EPR7480] - BSA and Azide free (ab248908)

This data was developed using **ab140621**, the same antibody clone in a different buffer formulation.Immunohistochemical analysis of paraffin embedded Human Lung adenocarcinoma tissue using **ab140621** showing +ve staining.

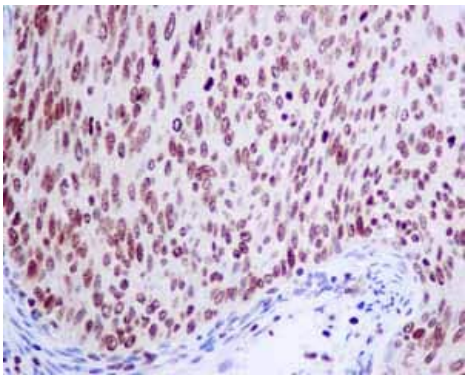
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOS1 antibody [EPR7480] - BSA and Azide free (ab248908)

This data was developed using **ab140621**, the same antibody clone in a different buffer formulation.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] - BSA and Azide free (ab248908)

This data was developed using **ab140621**, the same antibody clone in a different buffer formulation.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.

Anti-SOS1 antibody [EPR7480] - BSA and Azide free (ab248908)

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