abcam

Product datasheet

Anti-MSI2 antibody [EP1305Y] - BSA and Azide free ab221789

KO VALIDATED Recombinant RabMAb

1 References 9 Images

Overview

Product name	Anti-MSI2 antibody [EP1305Y] - BSA and Azide free
Description	Rabbit monoclonal [EP1305Y] to MSI2 - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** ICC/IF, WB, IHC-P, IP, Flow Cyt (Intra)
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Epitope	Based on the immunogen sequence for this antibody, it is not predicted to detect the shorter isoforms of MSI2.
Positive control	IHC-P: Human placenta, Human bladder carcinoma Tissue IP: T-47D cell lysate. ICC/IF: PC12 and MCF7 cells Flow Cyt (intra): T-47D and HeLa cells.
General notes	ab221789 is the carrier-free version of **ab76148**. 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: 7.20 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP1305Y
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab221789 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

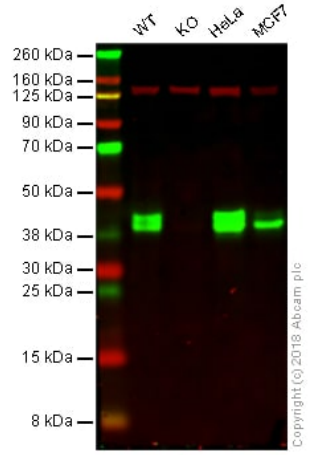
Application	Abreviews	Notes
ICC/IF		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Detects a band of approximately 35 kDa (predicted molecular weight: 35 kDa).
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval via the pressure cooker method before commencing with IHC staining protocol. The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for mouse and rat. See **IHC antigen retrieval protocols**.
IP		Use at an assay dependent concentration.
Flow Cyt (Intra)		Use at an assay dependent concentration. **ab199376** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Target

Function	RNA binding protein that regulates the expression of target mRNAs at the translation level. May play a role in the proliferation and maintenance of stem cells in the central nervous system.
Tissue specificity	Ubiquitous; detected at low levels.

Involvement in disease	Note=Chromosomal aberrations involving MSI2 may contribute to disease progression in chronic myeloid leukemia. Translocation t(7;17)(p15;q23) with HOXA9; translocation t(7;17)(q32-34;q23).
Sequence similarities	Belongs to the Musashi family. Contains 2 RRM (RNA recognition motif) domains.
Post-translational modifications	Phosphorylated.
Cellular localization	Cytoplasm. Associated with polysomes.

Images



Western blot - Anti-MSI2 antibody [EP1305Y] - BSA and Azide free (ab221789)

All lanes : Anti-MSI2 antibody [EP1305Y] (**ab76148**) at 1/1000 dilution

Lane 1 : Wild-type HAP1 whole cell lysate
Lane 2 : MSI2 knockout HAP1 whole cell lysate
Lane 3 : HeLa whole cell lysate
Lane 4 : MCF7 whole cell lysate

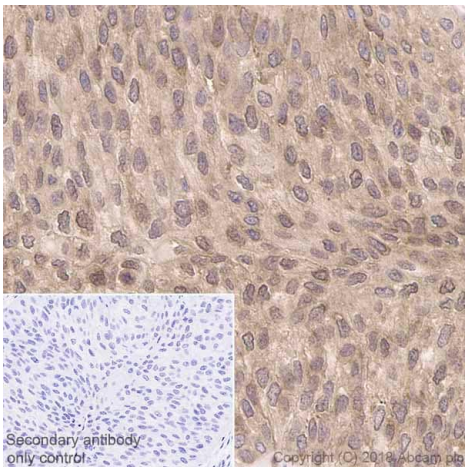
Lysates/proteins at 20 µg per lane.

Predicted band size: 35 kDa

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab76148**).

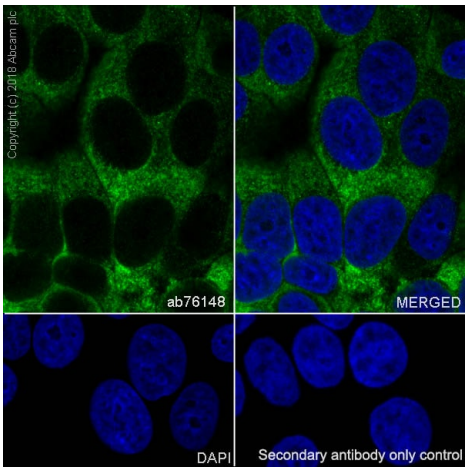
Lanes 1 - 4: Merged signal (red and green). Green - **ab76148** observed at 40 kDa. Red - loading control, **ab18058**, observed at 130 kDa.

ab76148 was shown to specifically react with MSI2 in wild-type HAP1 cells as signal was lost in MSI2 knockout cells. Wild-type and MSI2 knockout samples were subjected to SDS-PAGE. Ab76148 and **ab18058** (Mouse anti-Vinculin loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed **ab216773** and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed **ab216776** secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.



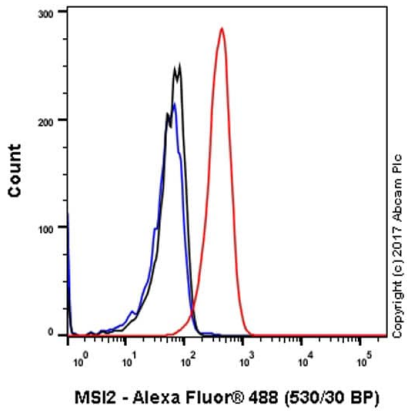
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MSI2 antibody [EP1305Y] - BSA and Azide free (ab221789)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human bladder carcinoma tissue sections labeling MSI2 with purified **ab76148** at 1:500 dilution (2.14 µg/ml). Heat mediated antigen retrieval was performed using **ab93684** (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use)was used as the secondary antibody. Negative control:PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



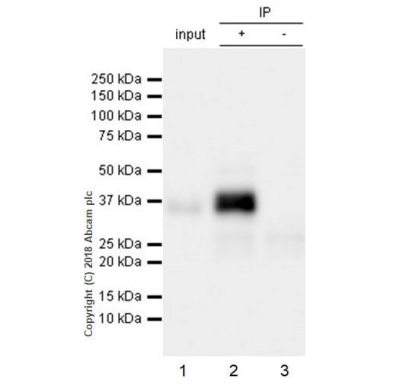
Immunocytochemistry/ Immunofluorescence - Anti-MSI2 antibody [EP1305Y] - BSA and Azide free (ab221789)

Immunocytochemistry/ Immunofluorescence analysis of MCF7 (Human breast adenocarcinoma epithelial cell) cells labeling MSI2 with purified **ab76148** at 1:100 dilution (10 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with None. Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



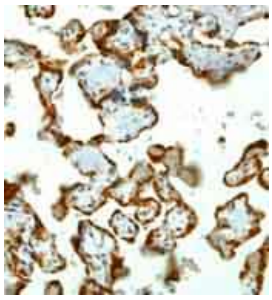
Flow Cytometry (Intracellular) - Anti-MSI2 antibody [EP1305Y] - BSA and Azide free (ab221789)

Intracellular Flow Cytometry analysis of T-47D (Human ductal breast epithelial tumor epithelial cell) cells labeling MSI2 with purified **ab76148** at 1/100 dilution (10 µg/ml) (red). Cells were fixed with 4% Paraformaldehyde. A Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Immunoprecipitation - Anti-MSI2 antibody [EP1305Y] - BSA and Azide free (ab221789)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab76148**).

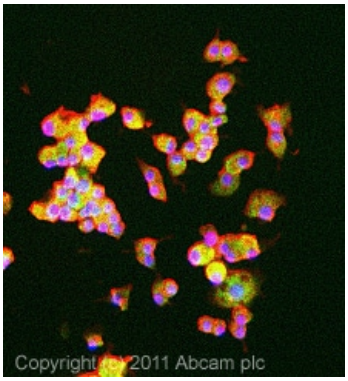


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MSI2 antibody [EP1305Y] - BSA and Azide free (ab221789)

Immunohistochemical analysis of paraffin-embedded human placenta with **ab76148** at 1/100-1/250 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab76148**).

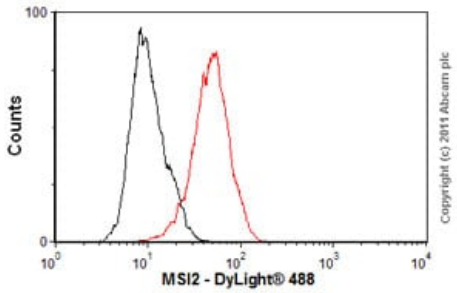
Heat mediated antigen retrieval was performed via the pressure cooker method before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-MSI2 antibody [EP1305Y] - BSA and Azide free (ab221789)

ICC/IF image of **ab76148** stained PC12 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (**ab76148**, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

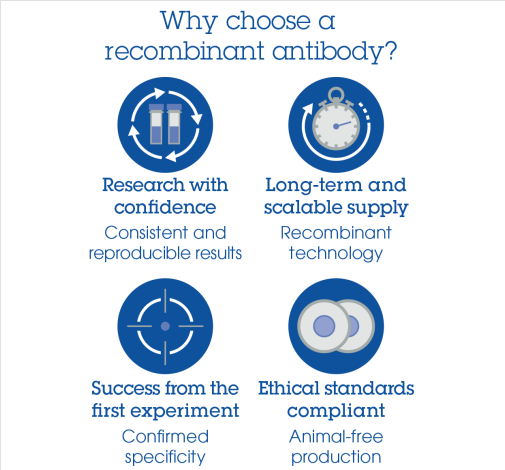
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab76148**).



Flow Cytometry (Intracellular) - Anti-MSI2 antibody [EP1305Y] - BSA and Azide free (ab221789)

Overlay histogram showing HeLa cells stained with **ab76148** (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (**ab76148**, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) (**ab96899**) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monclonal) (1µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive result in HeLa cells fixed with 80% methanol (5 min)/permeabilized in 0.1% PBS-Tween for 20 min used under the same conditions.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab76148**).



Anti-MSI2 antibody [EP1305Y] - BSA and Azide free

(ab221789)

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