abcam

Product datasheet

Anti-Musashi 1 / Msi1 antibody [EP1302] ab52865

KO VALIDATED Recombinant RabMAb

18 Abreviews 54 References 11 Images

Overview

Product name	Anti-Musashi 1 / Msi1 antibody [EP1302]
Description	Rabbit monoclonal [EP1302] to Musashi 1 / Msi1
Host species	Rabbit
Specificity	Several customers have found that this antibody gives good results in mouse and rat however in our hands, we cannot obtain positive results. This antibody is therefore no longer covered by our Abpromise guarantee for use in mouse or rat.
Tested applications	**Suitable for:** IHC-P, ICC/IF, Flow Cyt (Intra), WB **Unsuitable for:** IP
Species reactivity	**Reacts with:** Mouse, Chicken, Human, Quail
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	IHC-P: Human lung carcinoma tissue. Flow Cyt (intra): SH-SY5Y cells. ICC/IF: SH-SY5Y, Neuro-2a and HAP1-MSI1 cells. WB: SH-SY5Y cell lysate.
General notes	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 short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle. Stable for 12 months at -20°C.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
Purity	Protein A purified

Clonality	Monoclonal
Clone number	EP1302
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab52865 in the following tested applications.

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

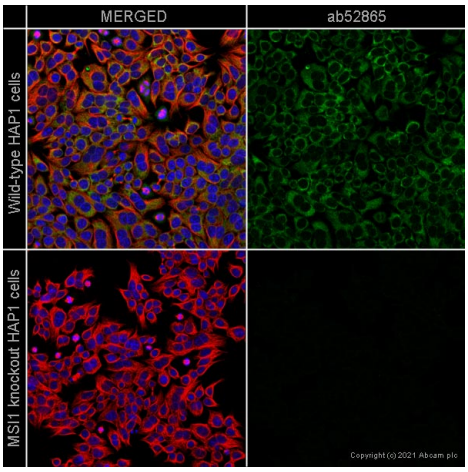
Application	Abreviews	Notes
IHC-P	★★★★★ (7)	1/50 - 1/500. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
ICC/IF		1/250 - 1/500.
Flow Cyt (Intra)		1/80. **ab172730** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody. For unpurified use at 1/40.
WB	★★★★☆ (6)	1/1000. Detects a band of approximately 39 kDa (predicted molecular weight: 39 kDa). **For unpurified use at 1/2000.**

Application notes Is unsuitable for IP.

Target

Function	RNA binding protein that regulates the expression of target mRNAs at the translation level. Regulates expression of the NOTCH1 antagonist NUMB. Binds RNA containing the sequence 5'-GUUAGUUAGUUAGUU-3' and other sequences containing the pattern 5'-[GA]U(1-3)AGU-3'. May play a role in the proliferation and maintenance of stem cells in the central nervous system.
Tissue specificity	Detected in fetal kidney, brain, liver and lung, and in adult brain and pancreas. Detected in hepatoma cell lines.
Sequence similarities	Belongs to the Musashi family. Contains 2 RRM (RNA recognition motif) domains.
Domain	The first RNA recognition motif binds more strongly to RNA compared to the second one.
Cellular localization	Cytoplasm. Nucleus.

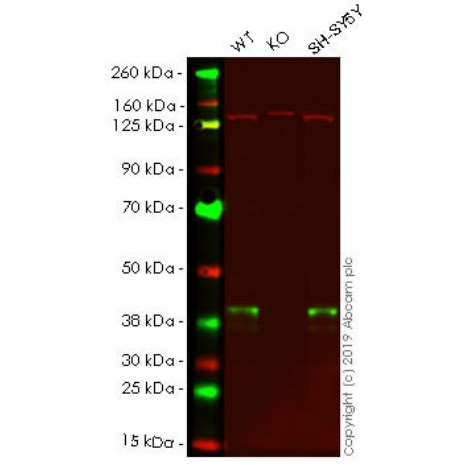
Images



Immunocytochemistry/ Immunofluorescence - Anti-Musashi 1 / Msi1 antibody [EP1302] (ab52865)

ab52865 staining Musashi 1 / Msi1 in HAP1-MSI1 cells. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% PBS-Tween for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab52865 at 1µg/ml and **ab7291**, Mouse monoclonal [DM1A] to alpha Tubulin - Loading Control. Cells were then incubated with **ab150081**, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 488), pre-adsorbed at 1/1000 dilution (shown in green) and **ab150080**, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 594) at 1/1000 dilution (shown in pseudocolour red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was acquired with a confocal microscope (Leica-Microsystems TCS SP8) and a single confocal section is shown.



Western blot - Anti-Musashi 1 / Msi1 antibody [EP1302] (ab52865)

All lanes : Anti-Musashi 1 / Msi1 antibody [EP1302] (ab52865) at 1/2000 dilution

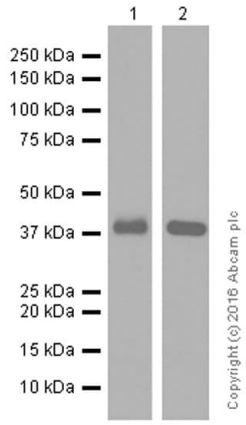
Lane 1 : Wild-type HAP1 whole cell lysate
Lane 2 : MSI1 knockout HAP1 whole cell lysate
Lane 3 : SH-SY5Y whole cell lysate

Predicted band size: 39 kDa
Observed band size: 39 kDa

Lanes 1 - 3: Merged signal (red and green). Green - ab52865 observed at 39 kDa. Red - loading control, **ab130007**, observed at 130 kDa.

ab52865 was shown to specifically react with Musashi 1 / Msi1 in wild-type HAP1 cells as signal was lost in MSI1 knockout cells. Wild-type and MSI1 knockout samples were subjected to SDS-PAGE. Ab52865 and **ab130007** (Mouse anti Vinculin loading control) were incubated overnight at 4°C at 1/2000 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.



Western blot - Anti-Musashi 1 / Msi1 antibody [EP1302] (ab52865)

All lanes : Anti-Musashi 1 / Msi1 antibody [EP1302] (ab52865) at 1/1000 dilution (purified)

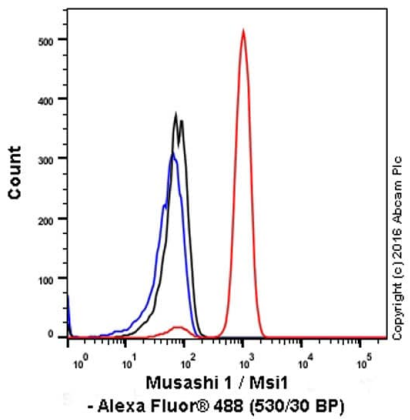
Lane 1 : SH-SY5Y (Human neuroblastoma epithelial cell) whole cell lysates
Lane 2 : UMNSAH/DF-1 (chicken embryo fibroblast) whole cell lysates

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/2000 dilution

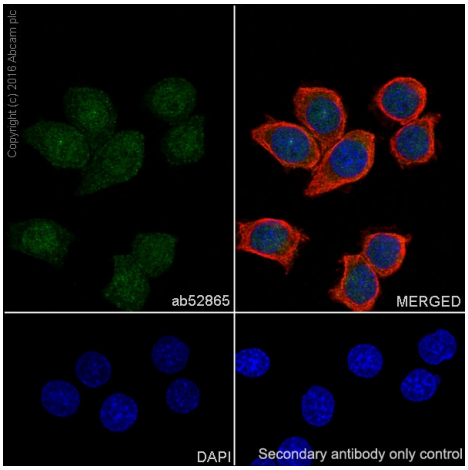
Predicted band size: 39 kDa

Blocking and diluting buffer: 5% NFDM/TBST.



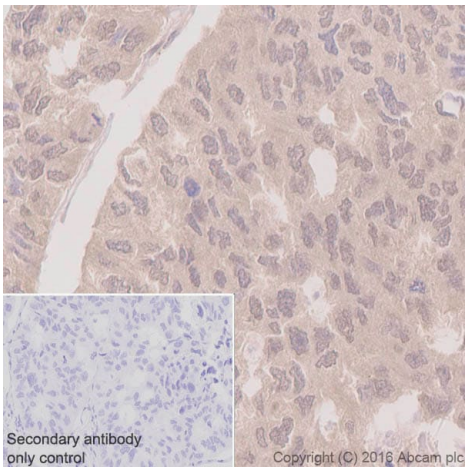
Flow Cytometry (Intracellular) - Anti-Musashi 1 / Msi1 antibody [EP1302] (ab52865)

Intracellular Flow Cytometry analysis of SH-SY5Y (Human neuroblastoma epithelial cell) cells labeling Mushashi 1/ Msi1 with purified ab52865 at 1/80 dilution (10µg/ml) (red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% methanol. A Goat anti rabbit IgG (Alexa Fluor® 488) secondary antibody was used at 1/2000 dilution. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



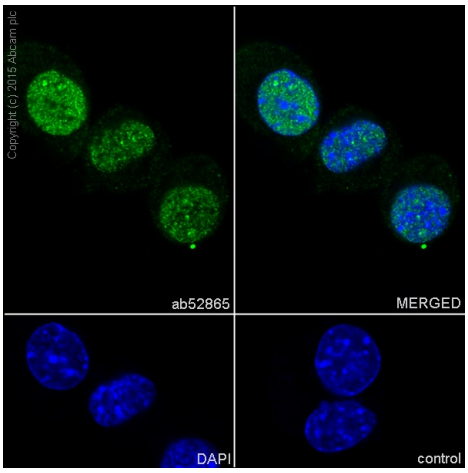
Immunocytochemistry/ Immunofluorescence - Anti-Musashi 1 / Msi1 antibody [EP1302] (ab52865)

Immunocytochemistry/ Immunofluorescence analysis of SH-SY5Y (Human neuroblastoma epithelial cell) cells labeling Mushashi 1/ Msi1 with Purified ab52865 at 1:500 dilution. Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200. Ab150077 Goat anti rabbit IgG(Alexa Fluor® 488) was used as the secondary antibody at 1:1000 dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



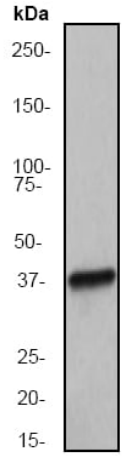
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Musashi 1 / Msi1 antibody [EP1302] (ab52865)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human lung carcinoma tissue sections labeling Mushashi 1/ Msi1 with Purified ab52865 at 1:50 dilution (17.7 µg/ml). Heat mediated antigen retrieval was performed using **ab93684** (Tris/EDTA buffer, pH 9.0). Tissue was counterstained with Hematoxylin. **ab97051** Goat Anti-Rabbit IgG H&L (HRP) secondary antibody was used at 1:500 dilution. PBS instead of the primary antibody was used as the negative control.



Immunocytochemistry/ Immunofluorescence - Anti-Musashi 1 / Msi1 antibody [EP1302] (ab52865)

Immunocytochemistry/Immunofluorescence analysis of Neuro-2a (mouse neuroblastoma) labelling Musashi 1 with purified ab52865 at 1/500. Cells were fixed with 4% Paraformaldehyde and permeabilised by 0.1% tritonX-100. An Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody (Ab150077). Nuclei counterstained with DAPI (blue).



Western blot - Anti-Musashi 1 / Msi1 antibody [EP1302] (ab52865)

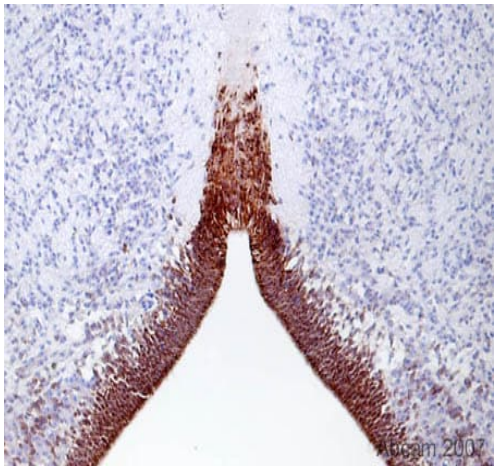
Anti-Musashi 1 / Msi1 antibody [EP1302] (ab52865) at 1/2000 dilution (unpurified) + SH-SY-5Y cell lysate at 10 µg/ml

Secondary

goat anti-rabbit HRP at 1/2000 dilution

Predicted band size: 39 kDa

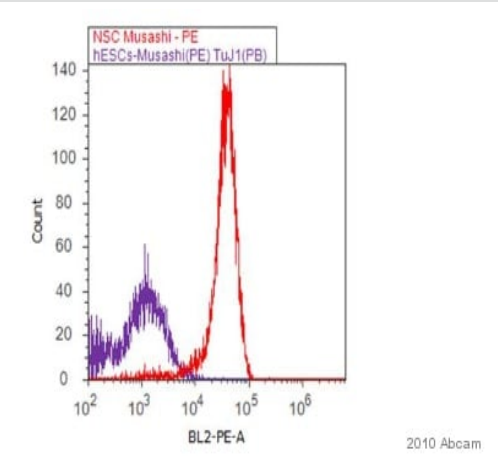
Observed band size: 39 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Musashi 1 / Msi1 antibody [EP1302] (ab52865)

This image is courtesy of Carl Hobbs, King's College London, United Kingdom

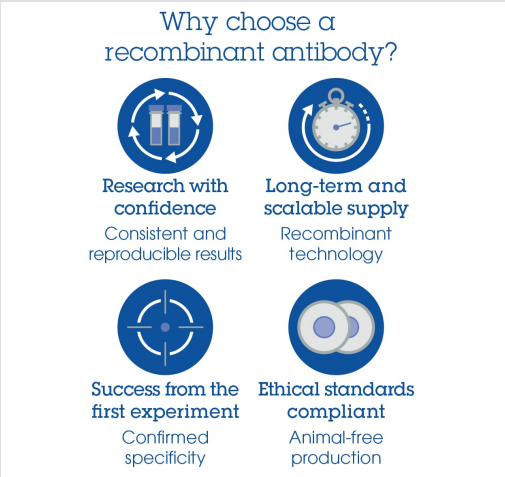
Immunohistochemistical detection (on formaldehyde/PFA-fixed paraffin-embedded sections) of Musashi 1 / Msi1 antibody [EP1302] (unpurified ab52865) on Quail Tissue sections (embryo d5/6 Brain stem T/S). Antigen retrieval step: Heat mediated. Blocking step: 1% BSA for 10 mins at RT. Primary Antibody unpurified ab52865 incubated at 1/300 for 2 hours at RT. Secondary Antibody: Biotin labelled goat anti rabbit IgG (1/300).



Flow Cytometry (Intracellular) - Anti-Musashi 1 / Msi1 antibody [EP1302] (ab52865)

This image is courtesy of an abreview submitted by Jennifer Moore, Stem Cell Research Center, United States

Intracellular Intracellular Flow Cyt image of Musashi1 (ab52865)using Accutase digested single cell suspension of hESC (Neural stem cells derived from human embryonic). The cells were fixed and permeabilized . The cells were incubated with unpurified ab52865 (1/20 using Prem/wash solution) for 30 mins at 23°C.



Anti-Musashi 1 / Msi1 antibody [EP1302] (ab52865)

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