abcam

ab221788

Anti-Hes1 antibody [EPR4226] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR4226
Purification technique	Affinity purification Protein A
Concentration	0.987 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Mouse
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/1000
Notes	-

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Mouse
Dilution info	-
Notes	-

IP

Not recommended

Species	Rat, Human, Mouse
Dilution info	-
Notes	-

WB

Tested

Species	Rat, Human
Dilution info	-
Notes	-

Predicted

Species	Mouse
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	ab199376 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Mouse

Dilution info	-
Notes	-

Target data

See full target information HES1

Function	Transcriptional repressor of genes that require a bHLH protein for their transcription. May act as a negative regulator of myogenesis by inhibiting the functions of MYOD1 and ASH1. Binds DNA on N-box motifs: 5'-CACNAG-3' with high affinity and on E-box motifs: 5'-CANNTG-3' with low affinity (By similarity). May play a role in a functional FA core complex response to DNA cross-link damage, being required for the stability and nuclear localization of FA core complex proteins, as well as for FANCD2 monoubiquitination in response to DNA damage.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab221788 is the carrier-free version of ab108937.

Patented technology

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. 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.

Compatibility

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.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

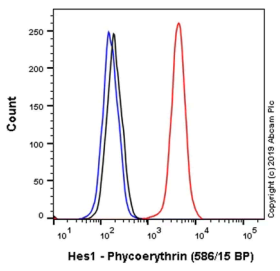
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

9 product images



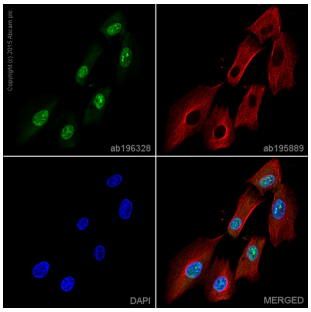
Flow Cytometry (Intracellular) - Anti-Hes1 antibody [EPR4226] - BSA and Azide free (ab221788)

Hes1 Flow Cytometry (Intracellular) staining using rabbit Anti-Hes1 antibody

Clone EPR4226 (ab221788) has been successfully conjugated by Abcam. This image was generated using Anti-Hes1 antibody [EPR4226] (PE). Please refer to ab225087 for protocol details.
Overlay histogram showing SHSY5Y cells stained with ab225087 (red line). The cells were fixed with 4% formaldehyde (10 min) and then permeabilized with 0.1% PBS-Triton X-100 for 15 min. The cells were then incubated in 1x PBS / 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (ab225087, 1/1000 dilution) for 30 min at 22°C.

Isotype control antibody (black line) was Rabbit IgG (monoclonal) Phycoerythrin (ab209478) used at the same concentration and conditions as the primary antibody. Unlabelled sample (blue line) was also used as a control.

Acquisition of >5,000 events were collected using a 50 mW Yellow/Green laser (561nm) and 586/15 bandpass filter.

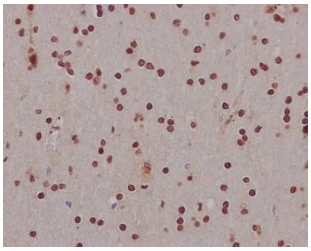


Immunocytochemistry/ Immunofluorescence - Anti-Hes1 antibody [EPR4226] - BSA and Azide free (ab221788)

Hes1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Hes1 antibody

Clone EPR4226 (ab221788) has been successfully conjugated by Abcam. This image was generated using Anti-Hes1 antibody [EPR4226] (Alexa Fluor® 488). Please refer to ab196328 for protocol details.
ab196328 staining Hes1 in SKNSH cells. The cells were fixed with 100% methanol (5min), permeabilized with 0.1% Triton X-100 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 ab196328 at 1/100 dilution (shown in green) and ab195889, Mouse monoclonal to alpha Tubulin (Alexa Fluor® 594), at 2 µg/ml (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).

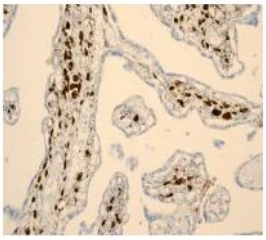
Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Hes1 antibody [EPR4226] - BSA and Azide free (ab221788)

Hes1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Hes1 antibody

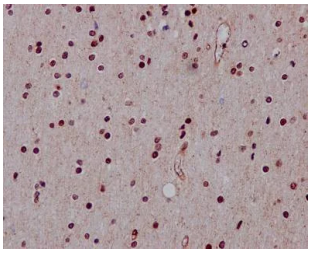
Primary ab concentration dilution: 1:200, (0.5ug/ml), Secondary ab: ImmunoHistoprobe (Ready to use) HRP Polymer for Rabbit IgG, Secondary ab concentration: Prediluted, Tissue: Human brain, Fixative: Paraffin-embedded sections, Counter stain: Hematoxylin Antigen retrieval: Perform heat mediated antigen retrieval using Tris/EDTA Buffer, PH9
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab108937).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Hes1 antibody [EPR4226] - BSA and Azide free (ab221788)

Hes1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Hes1 antibody

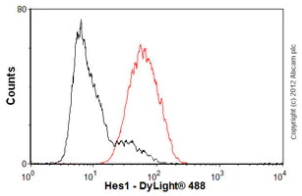
Immunohistochemical staining of Hes1 in paraffin-embedded human placenta tissue with unpurified ab108937 at 1/250 dilution.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab108937).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Hes1 antibody [EPR4226] - BSA and Azide free (ab221788)

Hes1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Hes1 antibody

Immunohistochemical staining of paraffin embedded human brain with unpurified ab108937 at a working dilution of 1 in 90. The secondary antibody used is a HRP polymer for rabbit IgG. The sample is counter-stained with hematoxylin. Antigen retrieval was perfomed using Tris-EDTA buffer, pH 9.0.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab108937).

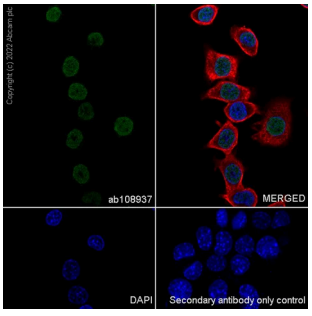


Flow Cytometry (Intracellular) - Anti-Hes1 antibody [EPR4226] - BSA and Azide free (ab221788)

Hes1 Flow Cytometry (Intracellular) staining using rabbit Anti-Hes1 antibody

Overlay histogram showing SH-SY5Y cells stained with unpurified ab108937 (red line). The cells were fixed with 80% methanol (5 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. The cells were then incubated with the antibody (ab108937, 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 (monoclonal) (1µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab108937).

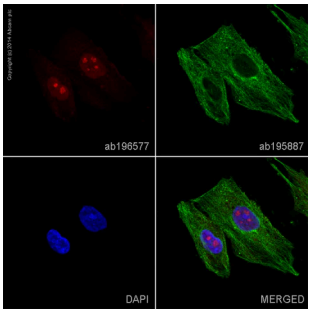


Immunocytochemistry/ Immunofluorescence - Anti-Hes1 antibody [EPR4226] - BSA and Azide free (ab221788)

Hes1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Hes1 antibody

Immunofluorescent analysis of 4% Paraformaldehyde fixed 0.1% TritonX-100 permeabilised SH-SY5Y (Human neuroblastoma epithelial cell) labelling Hes1 with ab108937 at 1/1000 dilution, followed by AlexaFluor® 488 Goat anti-Rabbit secondary (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing nuclear staining in SH-SY5Y cell line is observed. Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (ab195889) was used to counterstain alpha Tubulin at 1/200 dilution (red). The Nuclear counterstain was DAPI (blue).
Secondary antibody only control: Secondary antibody is AlexaFluor® 488 Goat anti-Rabbit secondary (ab150077) at 1/1000 dilution.

This data was developed using ab108937, the same antibody clone in a different buffer formulation.

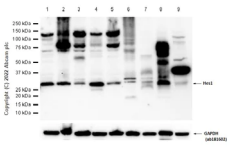


Immunocytochemistry/ Immunofluorescence - Anti-Hes1 antibody [EPR4226] - BSA and Azide free (ab221788)

Hes1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Hes1 antibody

Clone EPR4226 (ab221788) has been successfully conjugated by Abcam. This image was generated using Anti-Hes1 antibody [EPR4226] (Alexa Fluor® 647). Please refer to ab196577 for protocol details.
ab196577 staining Hes1 in SK-N-SH cells. The cells were fixed with 4% formaldehyde (10 min), permeabilized with 0.1% Triton X-100 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 ab196577 at 1/200 dilution (shown in red) and ab195887, Mouse monoclonal to alpha Tubulin (Alexa Fluor® 488), at 1/250 dilution (shown in green). Nuclear DNA was labelled with DAPI (shown in blue).
Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).
This product also gave a positive signal under the same testing conditions in SK-N-SH cells fixed with 100% methanol (5min).



Western blot - Anti-Hes1 antibody [EPR4226] - BSA and Azide free (ab221788)

Hes1 Western blot staining using rabbit Anti-Hes1 antibody

Blocking and diluting buffer and concentration: 5% NFDM /TBST.
This data was developed using ab108937, the same antibody clone in a different buffer formulation.

All lanes:
Western blot - Anti-Hes1 antibody [EPR4226] (ab108937) at 1/1000 dilution

Lane 1:
SH-SY5Y (Human bone marrow epithelial) whole cell lysate at 20 µg

Lane 2:
MOLT-4 (Human lymphoblastic leukemia T lymphoblast) whole cell lysate at 20 µg

Lane 3:
MDA-MB-231 (Human breast adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Lane 4:
MCF7 (Human breast adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Lane 5:
K-562 (Human chronic myelogenous leukemia lymphoblast) whole cell lysate at 20 µg

Lane 6:
HUVEC (Human umbilical vein endothelial cell) whole cell lysate at 20 µg

Lane 7:
HepG2 (Human hepatocellular carcinoma epithelial cell) whole cell lysate at 20 µg

Lane 8:
Human brain tissue lysate at 20 µg

Lane 9:
Human liver tissue lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/20000 dilution

Predicted band size: 30 kDa

Observed band size: 30 kDa

Exposure time: 120s

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.