abcam

ab232467

Anti-Zic1 antibody [EPR7291(2)] - 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	EPR7291(2)
Purification technique	Affinity purification Protein A
Concentration	0.993 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.

Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Target data

See full target information ZIC1

Function

Acts as a transcriptional activator. Involved in neurogenesis. Plays important roles in the early stage of organogenesis of the CNS, as well as during dorsal spinal cord development and maturation of the cerebellum. Involved in the spatial distribution of mossy fiber (MF) neurons within the pontine gray nucleus (PGN). Plays a role in the regulation of MF axon pathway choice. Promotes MF migration towards ipsilaterally-located cerebellar territories. May have a role in shear flow mechanotransduction in osteocytes. Retains nuclear GLI1 and GLI3 in the cytoplasm. Binds to the minimal GLI-consensus sequence 5'-TGGGTGGTC-3' (By similarity).

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

ab232467 is the carrier-free version of ab134951.

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.

What are the advantages of a recombinant monoclonal antibody?

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 batch production

For more information, read more on recombinant antibodies.

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.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Zic1 also known as Zinc Finger Protein of the Cerebellum 1 is a transcription factor with a molecular mass of approximately 55 kDa. It belongs to the ZIC family of proteins which contains a zinc finger motif that aids in DNA binding. Zic1 expresses mainly in the developing cerebellum and other parts of the brain during embryogenesis. It plays an important role in the transcriptional regulation of genes involved in neural development.
Biological function summary	Transcription factors like Zic1 regulate gene expression for cellular differentiation and proliferation. Zic1 does not act alone but interacts within a protein complex to modulate gene expression patterns critical for proper brain formation. Its activity affects processes such as neuronal precursor specification and cranial neural crest development. These functions highlight Zic1's central role in nervous system development and enhancement.

Pathways	Transcriptional regulation features Zic1 in specific routes related to neural development including the Hedgehog and Wnt signaling pathways. In the Hedgehog pathway Zic1 regulates the expression of genes linked to pattern formation in neural tissues. Zic1 also interacts with other proteins such as GLI transcription factors within the Wnt signaling pathway influencing cell fate decisions.
Associated diseases and disorders	Mutations or dysregulations of Zic1 associate with several neurological conditions such as Dandy-Walker syndrome and medulloblastoma. Abnormal Zic1 expression can disrupt normal cerebellar development contributing to these disorders. Additionally it interacts with proteins like Pax3 which is involved in neural tube defects linking Zic1 to broader developmental diseases.

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

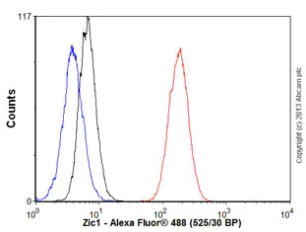
We do not recommend this combination. It is not covered by our product promise.

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.

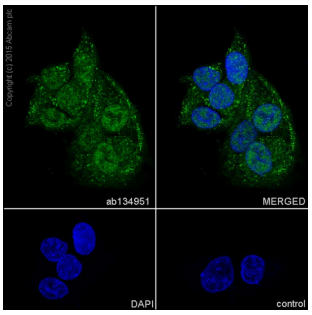
4 product images



Flow Cytometry (Intracellular) - Anti-Zic1 antibody [EPR7291(2)] - BSA and Azide free (ab232467)

Zic1 Flow Cytometry (Intracellular) staining using rabbit Anti-Zic1 antibody

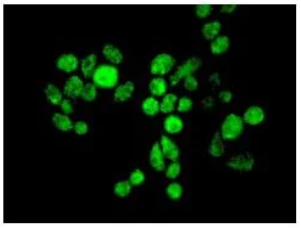
Overlay histogram showing SH-SY5Y cells stained with unpurified ab134951 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab134951, 1/1000 dilution) for 30 min at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit IgG (H&L) (ab150077) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (0.1µg/1x10^6 cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter. This antibody gave a positive signal in SH-SY5Y cells fixed with 4% paraformaldehyde (10 min)/permeabilized with 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 (ab134951).



Immunocytochemistry/ Immunofluorescence - Anti-Zic1 antibody [EPR7291(2)] - BSA and Azide free (ab232467)

Zic1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Zic1 antibody

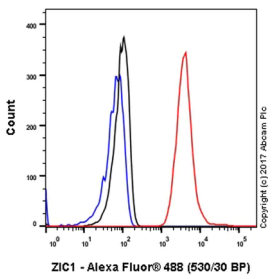
Immunocytochemistry/ Immunofluorescence analysis of SH-SY5Y (human neuroblastoma epithelial cell) cells labeling Zic1 with Purified ab134951 at 1:200 dilution. Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. ab150077 Goat anti rabbit IgG(Alexa Fluor®488) was used as the secondary antibody at 1:1000 dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab134951).



Immunocytochemistry/ Immunofluorescence - Anti-Zic1 antibody [EPR7291(2)] - BSA and Azide free (ab232467)

Zic1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Zic1 antibody

Immunofluorescent staining of SW480 cells labelling Zic1 with unpurified ab134951 at 1/100 dilution
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab134951).



Flow Cytometry (Intracellular) - Anti-Zic1 antibody [EPR7291(2)] - BSA and Azide free (ab232467)

Zic1 Flow Cytometry (Intracellular) staining using rabbit Anti-Zic1 antibody

Intracellular Flow Cytometry analysis of SH-SY5Y (Human neuroblastoma epithelial cell) cells labeling Zic1 with purified ab134951 at 1/70 dilution (red). Cells were fixed with 4% Paraformaldehyde. 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). This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab134951).

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