abcam

ab58210

Anti-Zyxin antibody [2D1]

Key facts

Isotype	IgG2a
Host species	Mouse
Storage buffer	pH: 7.4
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Full Length Protein corresponding to Human ZYX. Database link Q15942
Clone number	2D1
Purity	Tissue culture supernatant
Light chain type	kappa
Purification notes	Purified from TCS.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	-
Notes	ab170191 - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Target data

See full target information ZYX

Function Adhesion plaque protein. Binds alpha-actinin and the CRP protein. Important for targeting TES and ENA/VASP family members to focal adhesions and for the formation of actin-rich structures. May be a component of a signal transduction pathway that mediates adhesion-stimulated changes in gene expression (By similarity).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

This product was changed from ascites to tissue culture supernatant on 30th April 2019. Please note that the dilutions may need to be adjusted accordingly. If you have any questions, please do not hesitate to contact our scientific support team.

Supplementary info

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

Activity summary	Zyxin also known as ZYX is a mechanical regulator associated with cell adhesion and signaling. This protein has a molecular mass of approximately 61 kDa and shows expression in various cell types including those in the heart liver and lungs. As a component of focal adhesions zyxin plays a role in cytoskeletal dynamics by interacting with actin filaments and facilitating the formation of stress fibers.
Biological function summary	The protein has important roles in cellular processes such as migration and morphology. Zyxin often forms part of a larger protein complex that includes VASP and α-actinin which contribute to cell scaffolding and structural integrity. It serves as an organizer for cytoskeletal proteins ensuring proper cell movement and adaptability to cellular stress. Its actin-binding capacity enables it to regulate structural changes necessary for cellular adaptation to environmental stimuli.
Pathways	This protein is essential in the regulation of actin cytoskeleton associated pathways and adherens junction signaling. Zyxin interacts with Ena/VASP proteins which are significant in actin filament elongation helping regulate dynamic changes in cell shape and motility. Its relationship with LIM domain-containing proteins positions zyxin within pathways related to cell proliferation and signal transduction.
Associated diseases and disorders	Zyxin has been implicated in cancer progression especially in metastasis where altered cell adhesion and movement play a role. It also relates to cardiovascular diseases due to its involvement in mechanotransduction pathways critical to heart muscle function. In cancer zyxin influences the activity of YAP/TAZ transcription regulators affecting tumor cell behavior. In cardiovascular scenarios the protein interacts with paxillin to mediate responses to mechanical load changes impacting heart disease progression.

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

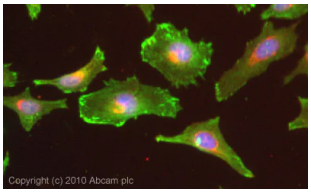
We do not recommend this combination. It is not covered by our product promise.

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.

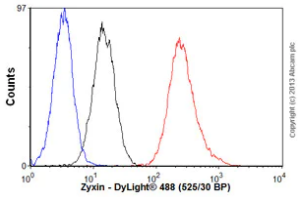
2 product images



Immunocytochemistry/ Immunofluorescence - Anti-Zyxin antibody [2D1] (ab58210)

Zyxin Immunocytochemistry/ Immunofluorescence staining using mouse Anti-Zyxin antibody

ICC/IF image of ab58210 stained HeLa 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 (ab58210, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-mouse 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 image was generated using the ascites version of the product.



Flow Cytometry - Anti-Zyxin antibody [2D1] (ab58210)

Zyxin Flow Cytometry staining using mouse Anti-Zyxin antibody

Overlay histogram showing HeLa cells stained with ab58210 (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 (ab58210, 0.5µg/1x10^6 cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG2a [ICIGG2A] (ab91361, 1µg/1x10^6 cells) used under the same conditions. Unlabelled sample (blue line). Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.
This image was generated using the ascites version of the product.

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