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Product Information

Anti-Zyxin

Developed in Rabbit
IgG Fraction of Antiserum

Product Number **Z 4751**

Product Description

Anti-Zyxin is developed in rabbit using as immunogen a synthetic peptide corresponding to amino acids 134-150 of human zyxin with N-terminal added cysteine, conjugated to KLH. The corresponding sequence differs by one amino acid in mouse. Whole antiserum is fractionated and then further purified by ion-exchange chromatography to provide the IgG fraction of antiserum that is essentially free of other rabbit serum proteins.

Anti-Zyxin recognizes human, mouse, and rat zyxin. Applications include immunoblotting (82-84 kDa) and immunofluorescence. Detection of the zyxin band by immunoblotting is specifically inhibited with the immunizing peptide.

Zyxin is a relatively low abundance component of the focal adhesion plaques, stress fibers, and dynamic cell membrane areas such as the leading edge.¹⁻³ It is also found in the cell nucleus.⁴ Zyxin is a member of the LIM domain protein family that also includes LPP (Lipoma Preferred Partner), Trip6 (thyroid hormone interacting protein 6), and Ajuba.⁵ It is a phosphoprotein composed of two major domains, an extended N-terminal domain that contains proline-rich sequences and a C-terminal domain that contains a functional nuclear export signal and three double zinc-finger cysteine and histidine-rich LIM domains.⁶ Zyxin interacts with multiple cytoskeletal, signaling and other proteins such as α -actinin, VASP, Mena, LIM-only proteins (CRP1, CRP2, CRP3/MLP), Vav, p130^{Cas}, CasL/HEF1, and SON DNA-binding protein.⁵ During mitosis, a fraction of zyxin associates with the tumor suppressor h-warts/LATS1 on the mitotic apparatus.⁷

Zyxin is implicated in the regulation and modulation of actin filaments organization, cell adhesion, cell motility, mitosis, and signal transduction.^{1, 2, 7, 8} Zyxin may shuttle between focal adhesion plaques and the nucleus.⁴ It has been suggested that zyxin is involved in gene transcription by its association with transcription factors in the nucleus.⁵

Reagent

Anti-Zyxin is supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide.

Precautions and Disclaimer

Due to the sodium azide content, a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For prolonged storage, freeze in working aliquots at -20 °C. Repeated freezing and thawing is not recommended. Storage in frost-free freezers is also not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

Product Profile

By immunoblotting, a minimum working antibody dilution of 1:1,000 is recommended using whole extract of human cervix epitheloid carcinoma (HeLa) cells and a chemiluminescent detection reagent.

By immunoblotting, a minimum working antibody dilution of 1:2,000 is recommended using whole extract of mouse NIH-3T3 cells and a chemiluminescent detection reagent.

By indirect immunofluorescence, a minimum working antibody dilution of 1:100 is recommended using rat Rat1 cells.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining the optimal working dilutions by titration.

References

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