

Product Information

Anti-Zyxin antibody

Mouse monoclonal, clone ZOL301
purified from hybridoma cell culture

Product Number **Z0377**

Product Description

Anti-Zyxin antibody, Mouse monoclonal (mouse IgG2a isotype) is derived from the hybridoma ZOL301 produced by the fusion of mouse myeloma cells (NS1 cells) and splenocytes from BALB/c mice immunized with a synthetic peptide corresponding to a fragment of human Zyxin conjugated to KLH via an N-terminal added cysteine. The isotype is determined by a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents, Product Number ISO2.

Anti-Zyxin antibody, Mouse monoclonal recognizes human, rat, and mouse Zyxin. The antibody may be used in ELISA, immunoblotting (82-84 kDa), and immunocytochemistry.

Zyxin is a relatively low abundance component of focal adhesion plaques, stress fibers, and dynamic cell membrane areas such as the leading edge.¹⁻³ It may also be 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 was reported to associate with the tumor suppressor h-warts/LATS1 on the mitotic apparatus.⁷ Zyxin has been 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 Involvement of Zyxin in gene transcription by its association with transcription factors in the nucleus has been suggested.⁵

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide.

Antibody Concentration: ~2 mg/mL

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet 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. Repeated freezing and thawing, or storage in frost-free freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 1-2 μ g/mL is recommended using total cell extract of HeLa cells.

Note: In order to obtain best results in various techniques and preparations, it is recommended to determine optimal working dilutions by titration.

References

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