

Zyxin (21): sc-136128

BACKGROUND

Zyxin is a low abundance phosphoprotein localized to focal adhesion plaques and is thought to perform regulatory functions at these regions. The protein contains a number of proline-rich sequences as well as three LIM domains, zinc finger domains involved in protein binding. Zyxin interacts with several other proteins at cell adhesion sites, including members of the CRP (cysteine-rich protein) LIM domain containing protein family. The proline-rich domain of Zyxin associates with an SH3 domain of p95 Vav, but not with similar SH3 domains containing proteins such as GRB2 or PLC γ . Zyxin has also been shown to interact with the focal adhesion protein VASP and may assist in the targeting of VASP to focal adhesions, microfilaments and membrane regions of high dynamic activity. Zyxin may contribute to the organization of the Actin cytoskeleton in mammalian cells.

REFERENCES

- Sadler, I., et al. 1992. Zyxin and cCRP: two interactive LIM domain proteins associated with the cytoskeleton. *J. Cell Biol.* 119: 1573-1587.
- Reinhard, M., et al. 1995. Identification, purification, and characterization of a Zyxin-related protein that binds the focal adhesion and microfilament protein VASP (vasodilator-stimulated phosphoprotein). *Proc. Natl. Acad. Sci. USA* 92: 7956-7960.
- Macalma, T., et al. 1996. Molecular characterization of human Zyxin. *J. Biol. Chem.* 271: 31470-31478.
- Hobert, O., et al. 1996. SH3 domain-dependent interaction of the proto-oncogene product Vav with the focal contact protein Zyxin. *Oncogene* 12: 1577-1581.
- Golsteyn, R.M., et al. 1997. Structural and functional similarities between the human cytoskeletal protein Zyxin and the ActA protein of *Listeria monocytogenes*. *J. Cell Sci.* 110: 1893-1906.
- Nix, D.A. and Beckerle, M.A. 1997. Nuclear-cytoplasmic shuttling of the focal contact protein, Zyxin: a potential mechanism for communication between sites of cell adhesion and the nucleus. *J. Cell Biol.* 138: 1139-1147.

SOURCE

Zyxin (21) is a mouse monoclonal antibody raised against amino acids 277-447 of Zyxin of chicken origin.

PRODUCT

Each vial contains 200 μ g IgG κ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS

Zyxin (21) is recommended for detection of Zyxin of avian origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500); not recommended for immunoprecipitation.

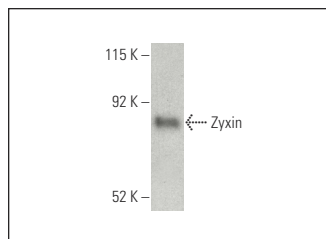
Molecular Weight of Zyxin: 82 kDa.

Positive Controls: DT40 cell lysate: sc-3816.

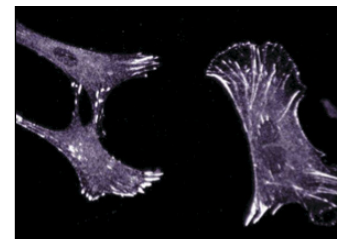
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Zyxin (21): sc-136128. Western blot analysis of Zyxin expression in DT40 whole cell lysate. Detection reagent used: m-IgG κ BP-HRP: sc-516102.



Zyxin (21): sc-136128. Immunofluorescence staining of chick fibroblast cells showing cytoskeletal localization.

SELECT PRODUCT CITATIONS

- Ueda, N., et al. 2022. Inner nuclear membrane protein, SUN1, is required for cytoskeletal force generation and focal adhesion maturation. *Front. Cell Dev. Biol.* 10: 885859.

RESEARCH USE

For research use only, not for use in diagnostic procedures. Not for resale.