

Technical Data Sheet

Purified Mouse anti-Ezrin (pT567)

Product Information

Material Number:	558357
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	J37-954.281.307
Immunogen:	Phosphorylated Ezrin Peptide
Isotype:	Mouse (BALB/c) IgG1, κ
Reactivity:	QC Testing: Human Predicted: Mouse, Rat
Target MW:	75-80 kDa
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

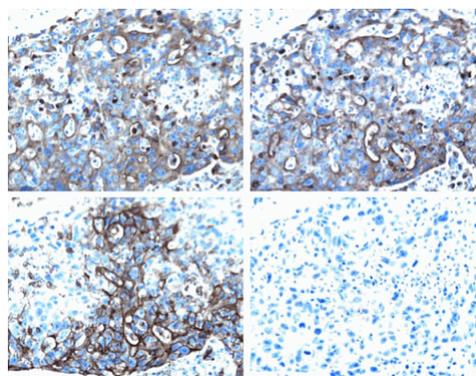
Description

Ezrin is a member of the ERM (*Ezrin-Radixin-Moesin*) family of proteins that can function as a crosslinker between the actin cytoskeleton and the plasma membrane of the cell. Phosphorylation of threonine residues (Thr567 on Ezrin, Thr564 on Radixin and Thr558 on Moesin) has been reported to occur with stimulation of growth factors and is important for cytoskeletal rearrangements. Phosphorylation of Thr567 at the C-terminal F actin-binding domain has been reported to activate the conversion of Ezrin from a dormant soluble form in the cytosol to a membrane- and actin-binding conformation.

In addition to its reactivity to the human species, the peptide used to generate this antibody is either identical or has homology to analogous regions of mouse and rat Ezrin, Radixin and Moesin. The J37-954.281.307 monoclonal antibody has been reported to recognize phosphorylated T567 on active Ezrin in addition to crossreacting on phosphorylated T564 on Radixin and phosphorylated T558 on Moesin.



Western blot analysis of Ezrin (pT567) in human epidermis. Lysates from control (lanes 1-3) and human epidermal growth factor-treated (lanes 4-6) human A-431 epidermoid carcinoma (Cat. no. 611447 and 611448, respectively) were probed with purified mAb J37-954.281.307 at concentrations of 0.03125 (lanes 1 and 4), 0.0156 (lanes 2 and 5), and 0.0078 $\mu\text{g/ml}$ (lanes 3 and 6). The bands appear as a doublet with Ezrin (pT567) and Radixin (pT564) identifiable at 80 kD and Moesin (pT558) identifiable at 75 kD in the growth factor treated cells.



Ezrin (pT567) staining on human breast cancer. Following antigen retrieval with BD Retrieval A buffer (Cat. no. 550524), the formalin-fixed paraffin-embedded sections were either left untreated (left column) or treated with a phosphatase to eliminate all phosphorylation (right column). The tissue sections were stained with either purified Mouse anti-Ezrin (Cat. no. 610602 or 610603, top row) or purified Mouse anti-Ezrin (pT567) (bottom row) with Hematoxylin counterstaining. Original magnification: 40X.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store undiluted at 4°C.

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Application Notes

Application

Western blot	Routinely Tested
Immunohistochemistry-formalin (antigen retrieval required)	Tested During Development

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

Suggested Companion Products

<u>Catalog Number</u>	<u>Name</u>	<u>Size</u>	<u>Clone</u>
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
611447	A431 Cell Lysate	500 µg	(none)
611448	A431 + EGF Cell Lysate	500 µg	(none)
610602	Purified Mouse Anti-Ezrin	50 µg	18/Ezrin

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References

Gautreau A, Louvard D, Arpin M. Morphogenic effects of ezrin require a phosphorylation-induced transition from oligomers to monomers at the plasma membrane. *J Cell Biol.* 2000; 150:193-203.(Biology)
Gautreau A, Pouillet P, Louvard D, Arpin M. Ezrin, a plasma membrane-microfilament linker, signals cell survival through the phosphatidylinositol 3-kinase/Akt pathway. *J Biol Chem.* 1999; 96:7300-7305.(Biology)
Tran Quang C, Gautreau A, Arpin M, Treisman R. Ezrin function is required for ROCK-mediated fibroblast transformation by the Net and Dbl oncogenes. *EMBO J.* 2000; 19:4565-4576.(Biology)