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FISH Rabbit pAb

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Catalog # AP54577

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q5TCZ1
Reactivity	Rat
Predicted	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	125289
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human FISH
Epitope Specificity	261-360/1133
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm. Cell projection > podosome. Cytoplasmic in normal cells and localizes to podosomes in SRC-transformed cells.
SIMILARITY	Belongs to the SH3PXD2 family. Contains 1 PX (phox homology) domain. Contains 5 SH3 domains.
SUBUNIT	Interacts (via N-terminus) with CYBA (By similarity). Interacts with ADAM12, ADAM15 and ADAM19. Interacts with NOXO1. Interacts (via SH3 domains) with NOXA1. Interacts with FASLG.
Post-translational modifications	Tyrosine phosphorylated by SRC. Phosphorylation plays a regulatory role in the protein localization. The intramolecular interaction of the PX domain with the third SH3 domain maintains the protein in the cytoplasm and phosphorylation disrupts this interaction, resulting in the redistribution of the protein from cytoplasm to the perimembrane region. Phosphorylated on serine upon DNA damage, probably by ATM or ATR.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Fish, a potential Src substrate, is a broadly expressed adaptor protein containing five SH3 domains and a phox homology (PX) domain (1). The Src family of protein tyrosine kinases act in signal transduction pathways (2-4). Src kinases vary in expression but are strongly regulated in vivo; catalytic activity is repressed by interacting with the SH3 domain (5-7). In Src-transformed fibroblasts and in normal cells treated with certain growth factors fish is tyrosine-phosphorylated (1). Treatment of cells with cytochalasin D results in rapid tyrosine phosphorylation of fish, along with activation of Src (1). Fish is likely to be involved in tyrosine kinase signaling and may have a role in cytoskeletal changes (1).

Additional Information

Gene ID	9644
Other Names	SH3 and PX domain-containing protein 2A, Adapter protein TKS5, Five SH3 domain-containing protein, SH3 multiple domains protein 1, Tyrosine kinase substrate with five SH3 domains, SH3PXD2A (HGNC:23664)
Target/Specificity	Found in several cancer cell lines, particularly invasive breast carcinomas and melanomas.
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

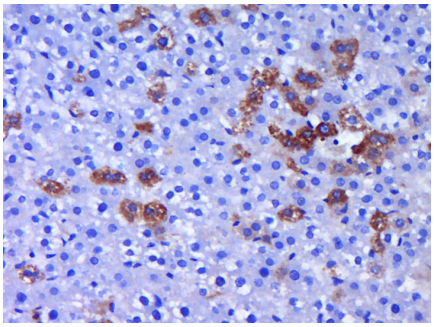
Protein Information

Name	SH3PXD2A (HGNC:23664)
Function	Adapter protein involved in invadopodia and podosome formation, extracellular matrix degradation and invasiveness of some cancer cells (PubMed:27789576). Binds matrix metalloproteinases (ADAMs), NADPH oxidases (NOXs) and phosphoinositides. Acts as an organizer protein that allows NOX1- or NOX3-dependent reactive oxygen species (ROS) generation and ROS localization. In association with ADAM12, mediates the neurotoxic effect of amyloid-beta peptide.
Cellular Location	Cytoplasm. Cell projection, podosome. Note=Cytoplasmic in normal cells and localizes to podosomes in SRC-transformed cells
Tissue Location	Found in several cancer cell lines, particularly invasive breast carcinomas and melanomas

Background

Fish, a potential Src substrate, is a broadly expressed adaptor protein containing five SH3 domains and a phox homology (PX) domain (1). The Src family of protein tyrosine kinases act in signal transduction pathways (2-4). Src kinases vary in expression but are strongly regulated in vivo; catalytic activity is repressed by interacting with the SH3 domain (5-7). In Src-transformed fibroblasts and in normal cells treated with certain growth factors fish is tyrosine-phosphorylated (1). Treatment of cells with cytochalasin D results in rapid tyrosine phosphorylation of fish, along with activation of Src (1). Fish is likely to be involved in tyrosine kinase signaling and may have a role in cytoskeletal changes (1).

Images



Paraformaldehyde-fixed, paraffin embedded (Rat liver); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (FISH) Polyclonal Antibody, Unconjugated (AP54577) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.