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FEZ1 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP59360

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	Q99689
Reactivity	Rat, Pig, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	45119
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human FEZ1
Epitope Specificity	301-392/392
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, cytoskeleton, centrosome. Cellmembrane (By similarity). Note=Co-localizes with both, alpha- andgamma-tubulin. Translocated from the plasma membrane to thecytoplasm by activation of the PKC zeta (By similarity).
SIMILARITY	Belongs to the zygin family.
SUBUNIT	Homodimer; difulfide-linked. May form heterodimers withFEZ2. Interacts with the NH2-terminal variable region (V1) of PKCzeta and weakly with that of PKC epsilon (By similarity). Interactswith UBE4B. Interacts with SAP30L. Interacts with SCOC and ULK1;SCOC interferes with ULK1-binding to FEZ1. Directly interacts withSCOC and UVRAG. Stabilizes the interaction between SCOC and UVRAGduring amino acid starvation.
Post-translational modifications	Phosphorylated by protein kinase C zeta; which enhancesinteraction with UBE4B and polyubiquitination.Polyubiquitinated in a UBE4B-dependent manner; which does notlead to proteasomal degradation and may be important for neurogenicactivity. Polyubiquitin linkage seems to be mainly through Lys-26.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Frequent loss of heterozygosity (LOH) at human chromosome 8p22-p21 is associated with various tumors including prostate and breast cancer. The 8p22-p21 region contains the FEZ1 gene, which is altered in tumors of the esophagus, prostate and breast. The FEZ1 protein (also known as leucine zipper putative tumor suppressor or LZTS1) contains a DNA-binding leucine zipper motif. FEZ1 is expressed in normal breast and prostate, but alterations in FEZ1 expression result in abnormal cell growth. The absence of FEZ1 expression is characteristic of breast and prostate cancer cell lines as well as primary breast and pro-state tumors. This absence of FEZ1 may be due to several factors, including mutations in the FEZ1 gene or hypermethylation of the CpG island flanking the FEZ1 promoter region. FEZ1 acts as a negative regulator of cell growth. During cell-cycle progression, FEZ1 localizes to microtubule components and is hyperphosphorylated by cAMP-dependent

kinase.

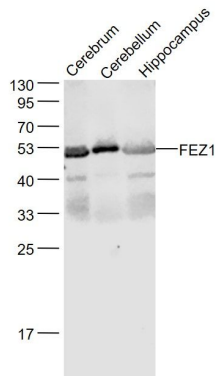
Additional Information

Gene ID	9638
Other Names	Fasciculation and elongation protein zeta-1, Zygin I, Zygin-1, FEZ1
Target/Specificity	Mainly expressed in brain.
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:50-200,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
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

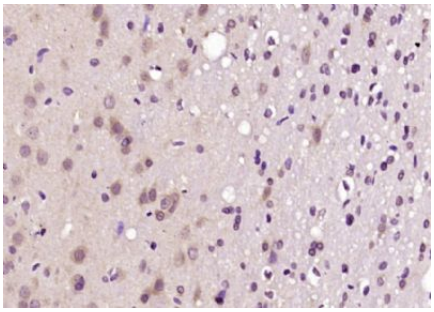
Name	FEZ1
Function	May be involved in axonal outgrowth as component of the network of molecules that regulate cellular morphology and axon guidance machinery. Able to restore partial locomotion and axonal fasciculation to C.elegans unc-76 mutants in germline transformation experiments. May participate in the transport of mitochondria and other cargos along microtubules.
Cellular Location	Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cell membrane. Note=Colocalizes with both, alpha- and gamma-tubulin Translocated from the plasma membrane to the cytoplasm by activation of the PKC zeta (By similarity).
Tissue Location	Mainly expressed in brain.

Images



Sample:
Cerebrum (Mouse) Lysate at 40 ug
Cerebellum (Mouse) Lysate at 40 ug
Hippocampus (Mouse) Lysate at 40 ug
Primary: Anti- FEZ1 (AP59360) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 45 kD
Observed band size: 45 kD

Paraformaldehyde-fixed, paraffin embedded (mouse cerebellum); 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 (FEZ1) Polyclonal Antibody, Unconjugated (AP59360) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.