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YWHAG Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2939c

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	P61981
Other Accession	Q6NRY9, Q6PCG0, P61983, P61982, Q5F3W6, P68252
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Chicken, Rat, Xenopus
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB20871
Calculated MW	28303
Antigen Region	136-164

Additional Information

Gene ID	7532
Other Names	14-3-3 protein gamma, Protein kinase C inhibitor protein 1, KCIP-1, 14-3-3 protein gamma, N-terminally processed, YWHAG
Target/Specificity	This YWHAG antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 136-164 amino acids from the Central region of human YWHAG.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	YWHAG Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	YWHAG (HGNC:12852)
Function	Adapter protein implicated in the regulation of a large spectrum of both

general and specialized signaling pathways (PubMed:15696159, PubMed:16511572, PubMed:36732624). Binds to a large number of partners, usually by recognition of a phosphoserine or phosphothreonine motif (PubMed:15696159, PubMed:16511572, PubMed:36732624). Binding generally results in the modulation of the activity of the binding partner (PubMed:16511572). Promotes inactivation of WDR24 component of the GATOR2 complex by binding to phosphorylated WDR24 (PubMed:36732624). Participates in the positive regulation of NMDA glutamate receptor activity by promoting the L- glutamate secretion through interaction with BEST1 (PubMed:29121962). Reduces keratinocyte intercellular adhesion, via interacting with PKP1 and sequestering it in the cytoplasm, thereby reducing its incorporation into desmosomes (PubMed:29678907). Plays a role in mitochondrial protein catabolic process (also named MALM) that promotes the degradation of damaged proteins inside mitochondria (PubMed:22532927).

Cellular Location

Cytoplasm, cytosol. Mitochondrion matrix. Note=Translocates to the mitochondrial matrix following induction of MALM (mitochondrial protein catabolic process).

Tissue Location

Highly expressed in brain, skeletal muscle, and heart.

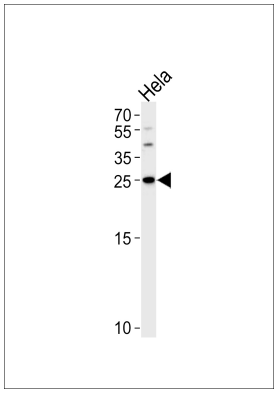
Background

YWHAG belongs to the 14-3-3 family of proteins which mediate signal transduction by binding to phosphoserine-containing proteins. This highly conserved protein family is found in both plants and mammals, and this protein is 100% identical to the rat ortholog. It is induced by growth factors in human vascular smooth muscle cells, and is also highly expressed in skeletal and heart muscles, suggesting an important role for this protein in muscle tissue. It has been shown to interact with RAF1 and protein kinase C, proteins involved in various signal transduction pathways.

References

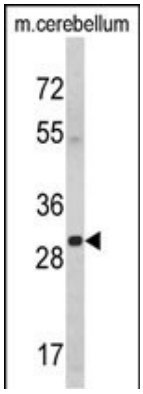
Jagemann,L.R., et.al., J. Biol. Chem. 283 (25), 17450-17462 (2008)

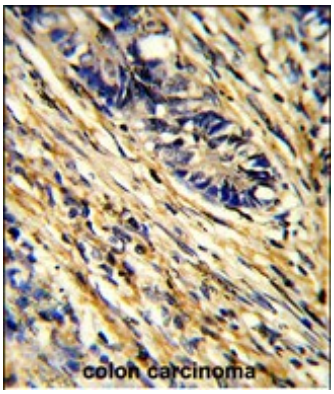
Images



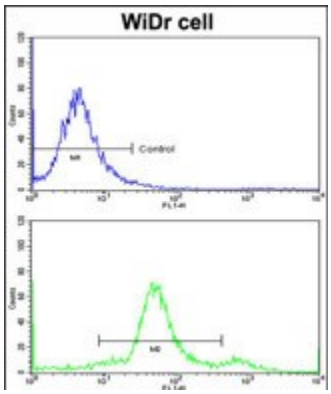
Western blot analysis of lysate from Hela cell line, using YWHAG Antibody (Center)(Cat. #AP2939c). AP2939c was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysate at 35ug.

Western blot analysis of YWHAG Antibody (Center) (Cat. #AP2939c) in mouse cerebellum tissue lysates (35ug/lane). YWHAG (arrow) was detected using the purified Pab.

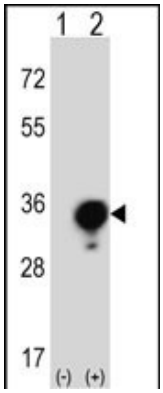




Formalin-fixed and paraffin-embedded human colon carcinoma reacted with YWHAG Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Flow cytometric analysis of widr cells using YWHAG Antibody (Center)(bottom histogram) compared to a negative control cell (top histogram)FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Western blot analysis of YWHAG (arrow) using rabbit polyclonal YWHAG Antibody (Center) (Cat. #AP2939c). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the YWHAG gene.