10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

AXIN1

Purified Mouse Monoclonal Antibody
Catalog # AO2537a

Product Information

Application	WB, IHC, ICC, E
Primary Accession	O15169
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	4E9F1
Isotype	Mouse IgG2b
Calculated MW	95635
Immunogen	Purified recombinant fragment of human AXIN1 (AA: 546-752) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide

Additional Information

Gene ID	8312
Other Names	AXIN; PPP1R49
Dilution	WB~~ 1/500 - 1/2000 IHC~~1:100~500 ICC~~ 1/50 - 1/250 E~~ 1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	AXIN1 is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	AXIN1
Synonyms	AXIN
Function	Component of the beta-catenin destruction complex required for regulating CTNNB1 levels through phosphorylation and ubiquitination, and modulating Wnt-signaling (PubMed:12192039, PubMed:27098453, PubMed:28829046). Controls dorsoventral patterning via two opposing effects; down-regulates CTNNB1 to inhibit the Wnt signaling pathway and ventralize embryos, but also dorsalizes embryos by activating a Wnt-independent JNK signaling pathway (PubMed:12192039). In Wnt signaling, probably facilitates the

phosphorylation of CTNNB1 and APC by GSK3B (PubMed:12192039). Enhances TGF-beta signaling by recruiting the RNF111 E3 ubiquitin ligase and promoting the degradation of inhibitory SMAD7 (PubMed:16601693). Also a component of the AXIN1-HIPK2-TP53 complex which controls cell growth, apoptosis and development (PubMed:17210684). Facilitates the phosphorylation of TP53 by HIPK2 upon ultraviolet irradiation (PubMed:17210684). Activates the AMP-activated protein kinase (AMPK) in response to calorie restriction by acting as a molecular adapter: recruited to late endosome membrane by the V-ATPase complex downstream of TULP3, and mediates association between STK11 and its AMPK substrates PRKAA1 and/or PRKAA2, leading to AMPK activation (By similarity).

Cellular Location

Cytoplasm. Nucleus. Membrane {ECO:0000250|UniProtKB:O35625} Cell membrane {ECO:0000250|UniProtKB:O35625}. Late endosome {ECO:0000250|UniProtKB:O35625}. Note=MACF1 is required for its translocation to cell membrane (By similarity). On UV irradiation, translocates to the nucleus and colocalizes with DAAX (PubMed:17210684). {ECO:0000250|UniProtKB:O35625, ECO:0000269|PubMed:17210684}

Tissue Location

Ubiquitously expressed.

References

1.Cancer Lett. 2014 Dec 1;355(1):1-8.2.BMC Cancer. 2013 Aug 2;13:368.

Images

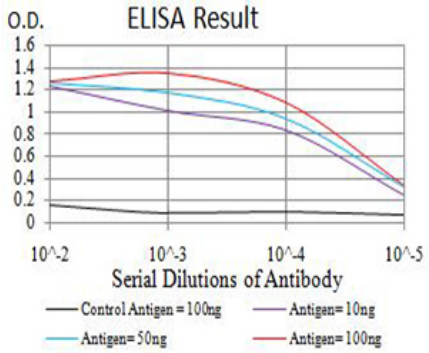


Figure 1:Black line: Control Antigen (100 ng);Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line:Antigen (100 ng)

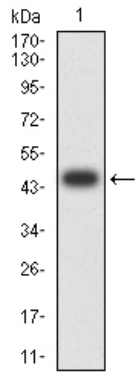
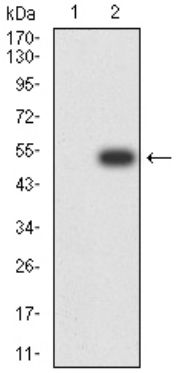


Figure 2:Western blot analysis using AXIN1 mAb against human AXIN1 (AA: 546-752) recombinant protein. (Expected MW is 48.7 kDa)

Figure 3:Western blot analysis using AXIN1 mAb against HEK293 (1) and AXIN1 (AA: 546-752)-hIgGFc transfected HEK293 (2) cell lysate.



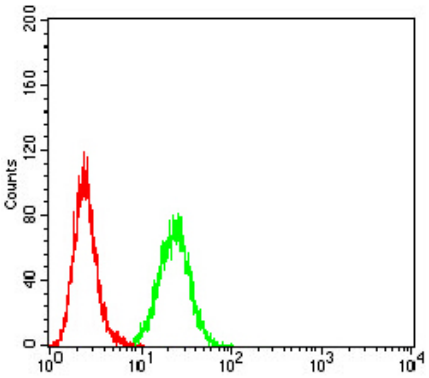


Figure 5:Flow cytometric analysis of Hela cells using AXIN1 mouse mAb (green) and negative control (red).

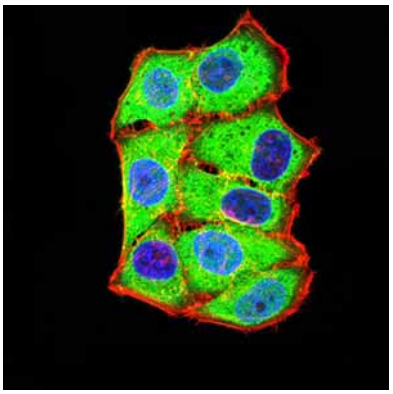


Figure 4:Immunofluorescence analysis of Hela cells using AXIN1 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor- 555 phalloidin. Secondary antibody from Fisher (Cat#: 35503)

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