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Anti-SENP2 Antibody

Catalog # AP59864

Product Information

Application	WB, IHC, IF/IC
Primary Accession	Q9HC62
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	67855

Additional Information

Gene ID	59343
Other Names	KIAA1331; Sentrin-specific protease 2; Axam2; SMT3-specific isopeptidase 2; Smt3ip2; Sentrin/SUMO-specific protease SENP2
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human SENP2. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000), IHC (1/100 - 1/200) IHC~~WB (1/500 - 1/1000), IHC (1/100 - 1/200) IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

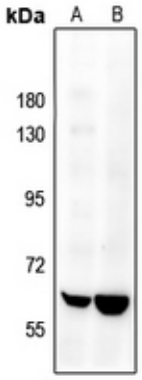
Name	SENP2 {ECO:0000303|PubMed:10718198, ECO:0000312|HGNC:HGNC:23116}
Function	Protease that catalyzes two essential functions in the SUMO pathway (PubMed:11896061, PubMed:12192048, PubMed:15296745, PubMed:20194620, PubMed:21965678). The first is the hydrolysis of an alpha-linked peptide bond at the C-terminal end of the small ubiquitin- like modifier (SUMO) propeptides, SUMO1, SUMO2 and SUMO3 leading to the mature form of the proteins (PubMed:15296745). The second is the deconjugation of SUMO1, SUMO2 and SUMO3 from targeted proteins, by cleaving an epsilon-linked peptide bond between the C-terminal glycine of the mature SUMO and the lysine epsilon-amino group of the target protein (PubMed:15296745, PubMed:20194620, PubMed:21965678). May down-regulate CTNNB1 levels and thereby modulate the Wnt pathway (By similarity). Deconjugates SUMO2 from MTA1 (PubMed:21965678). Plays a dynamic role in adipogenesis by desumoylating and promoting the

stabilization of CEBPB (PubMed:20194620). Acts as a regulator of the cGAS-STING pathway by catalyzing desumoylation of CGAS and STING1 during the late phase of viral infection (By similarity).

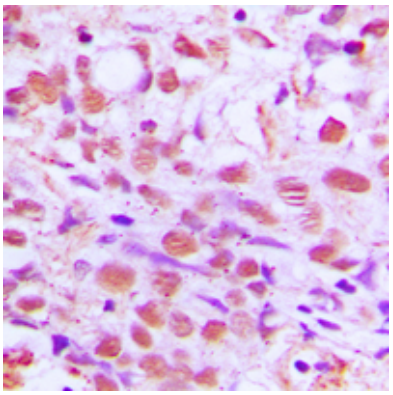
Cellular Location

Nucleus, nuclear pore complex. Nucleus membrane; Peripheral membrane protein; Nucleoplasmic side. Cytoplasm Note=Shuttles between cytoplasm and nucleus

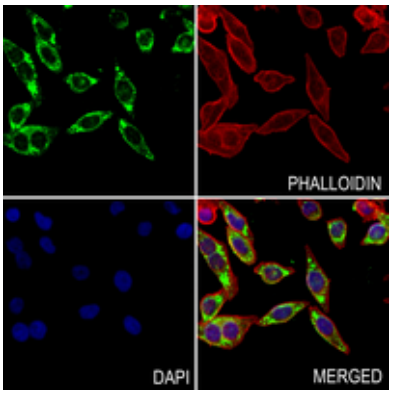
Images



Western blot analysis of SENP2 expression in CT26 (A), C6 (B) whole cell lysates. (Predicted band size: 67 kD; Observed band size: 65 kD)

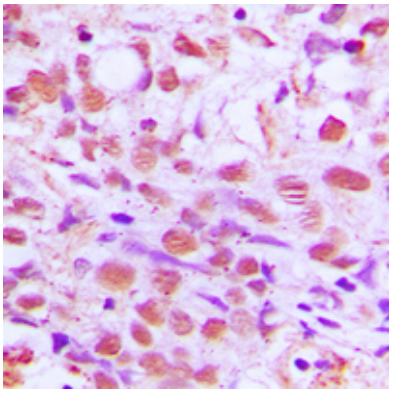


Immunohistochemical analysis of SENP2 staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of SENP2 staining in MCF7 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

Immunohistochemical analysis of SENP2 staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



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