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Anti-PALF (Phospho-S116) Antibody

Catalog # AP61267

Product Information

Application	WB, IHC
Primary Accession	Q8IW19
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	56956

Additional Information

Gene ID	200558
Other Names	C2orf13; PALF; XIP1; Aprataxin and PNK-like factor; Apurinic-apyrimidinic endonuclease APLF; PNK and APTX-like FHA domain-containing protein; XRCC1-interacting protein 1
Target/Specificity	KLH-conjugated synthetic phosphopeptide corresponding to residues surrounding S116 of human PALF protein. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000), IHC (1/50 - 1/200) IHC~~WB (1/500 - 1/1000), IHC (1/50 - 1/200)
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

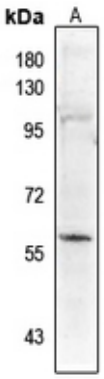
Name	APLF {ECO:0000303|PubMed:17353262, ECO:0000312|HGNC:HGNC:28724}
Function	Histone chaperone involved in single-strand and double-strand DNA break repair (PubMed:17353262, PubMed:17396150, PubMed:21211721, PubMed:21211722, PubMed:29905837, PubMed:30104678). Recruited to sites of DNA damage through interaction with branched poly-ADP-ribose chains, a polymeric post-translational modification synthesized transiently at sites of chromosomal damage to accelerate DNA strand break repair reactions (PubMed:17353262, PubMed:17396150, PubMed:21211721, PubMed:30104678). Following recruitment to DNA damage sites, acts as a histone chaperone that mediates histone eviction during DNA repair and promotes recruitment of histone variant MACROH2A1 (PubMed:21211722, PubMed:29905837, PubMed:30104678). Also has a nuclease activity: displays apurinic-apyrimidinic (AP) endonuclease and 3'-5' exonuclease activities in vitro (PubMed:17353262, PubMed:17396150). Also able to introduce nicks at

hydroxyuracil and other types of pyrimidine base damage (PubMed:17353262, PubMed:17396150). Together with PARP3, promotes the retention of the LIG4-XRCC4 complex on chromatin and accelerate DNA ligation during non-homologous end-joining (NHEJ) (PubMed:21211721, PubMed:23689425). Also acts as a negative regulator of cell pluripotency by promoting histone exchange (By similarity). Required for the embryo implantation during the epithelial to mesenchymal transition in females (By similarity).

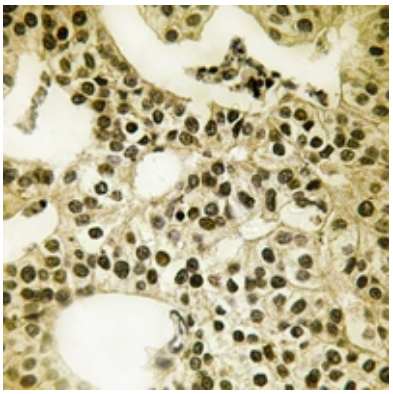
Cellular Location

Nucleus. Chromosome. Cytoplasm, cytosol. Note=Localizes to DNA damage sites (PubMed:18172500, PubMed:18474613, PubMed:21211721, PubMed:21211722, PubMed:23689425). Accumulates at single-strand breaks and double-strand breaks via the PBZ-type zinc fingers (PubMed:18172500)

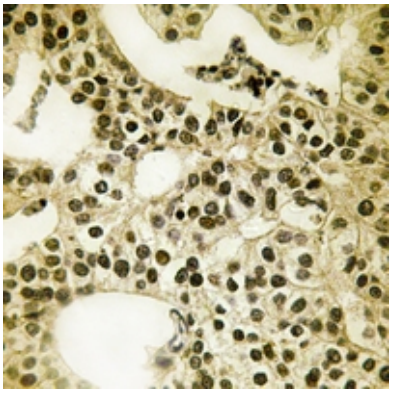
Images



Western blot analysis of PALF (Phospho-S116) expression in A2780 (A) whole cell lysates. (Predicted band size: 56 kD; Observed band size: 57 kD)



Immunohistochemical analysis of PALF (Phospho-S116) 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.



Immunohistochemical analysis of PALF (pS116) 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.

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