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APLF Antibody - C-terminal region
Rabbit Polyclonal Antibody
Catalog # AI15209

Specification

APLF Antibody - C-terminal region - Product Information

Application	**WB**
Primary Accession	Q8IW19
Other Accession	NM_173545, NP_775816
Reactivity	**Human, Mouse, Rat, Rabbit, Pig, Horse, Bovine**
Predicted	**Human, Mouse, Rat, Rabbit, Pig, Horse, Bovine**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**57kDa KDa**

APLF Antibody - C-terminal region - Additional Information

Gene ID 200558

Alias Symbol	**APFL, C2orf13, FLJ16593, MGC47799, PALF, Xip1**

Other Names
Aprataxin and PNK-like factor, 4.2.99.18, Apurinic-apyrimidinic endonuclease APLF, PNK and APTX-like FHA domain-containing protein, XRCC1-interacting protein 1, APLF, C2orf13, PALF, XIP1

Format
Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.

Reconstitution & Storage
Add 50 ul of distilled water. Final anti-APLF antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.

Precautions
APLF Antibody - C-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

APLF Antibody - C-terminal region - 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:<a

href="http://www.uniprot.org/citations/30104678" target="_blank">30104678, PubMed:29905837). 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:30104678, PubMed:29905837). 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:18474613, PubMed:18172500, PubMed:21211721, PubMed:21211722, PubMed:23689425). Accumulates at single-strand breaks and double-strand breaks via the PBZ-type zinc fingers (PubMed:18172500)

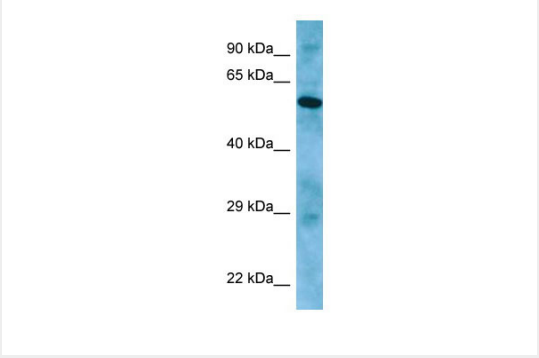
APLF Antibody - C-terminal region - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

APLF Antibody - C-terminal region - Images

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WB Suggested Anti-APLF Antibody Titration: 1.0 µg/ml
Positive Control: PANC1 Whole Cell

APLF Antibody - C-terminal region - References

Ota T.,et al.Nat. Genet. 36:40-45(2004).
Hillier L.W.,et al.Nature 434:724-731(2005).
Kanno S.,et al.EMBO J. 26:2094-2103(2007).
Bekker-Jensen S.,et al.J. Biol. Chem. 282:19638-19643(2007).
Iles N.,et al.Mol. Cell. Biol. 27:3793-3803(2007).