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WAPL Antibody

Catalog # ASC11802

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q7Z5K2
Other Accession	NP_055860, 42734325
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	132946
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	WAPL antibody can be used for detection of WAPL by Western blot at 1 - 2 g/ml. Antibody can also be used for Immunohistochemistry at 5 g/mL. For Immunoflorescence start at 20 g/mL.

Additional Information

Gene ID	23063
Other Names	Wings apart-like protein homolog, Friend of EBNA2 protein, WAPAL, FOE, KIAA0261, WAPL
Target/Specificity	WAPAL; WAPL antibody is human, mouse and rat reactive. At least four isoforms of WAPL are known to exist.
Reconstitution & Storage	WAPL antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.
Precautions	WAPL Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	WAPL (HGNC:23293)
Synonyms	FOE, KIAA0261, WAPAL
Function	Regulator of sister chromatid cohesion in mitosis which negatively regulates cohesin association with chromatin (PubMed:26299517). Involved in both sister chromatid cohesion during interphase and sister-chromatid resolution during early stages of mitosis. Couples DNA replication to sister chromatid cohesion. Cohesion ensures that chromosome partitioning is accurate in both meiotic and mitotic cells and plays an important role in DNA repair.
Cellular Location	[Isoform 2]: Nucleus.

Tissue Location	Isoform 1 is highly expressed in uterine cervix tumor. Isoform 2 is widely expressed with a high level in skeletal muscle and heart.

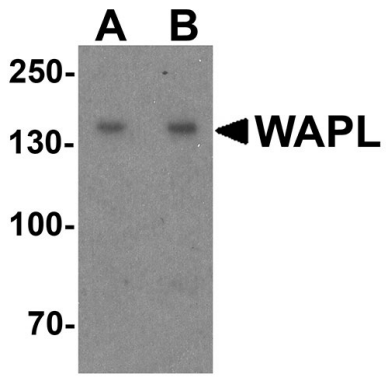
Background

WAPL (wings apart-like), also known as WAPAL or FOE, is a 1,190 amino acid protein that contains one WAPL domain and may play an important role in cell growth (1). It is expressed in an isoform dependent manner in heart, skeletal muscle (isoform 2) and uterine cervix tumor tissue (isoform 1) (1,2,4). WAPL is involved in sister-chromatid adhesion and promotes release of cohesin from chromosomes by directly interacting with its regulatory subunits (3,4). WAPL is a new regulator of the development and metastasis of cancerous tissue (4,5).

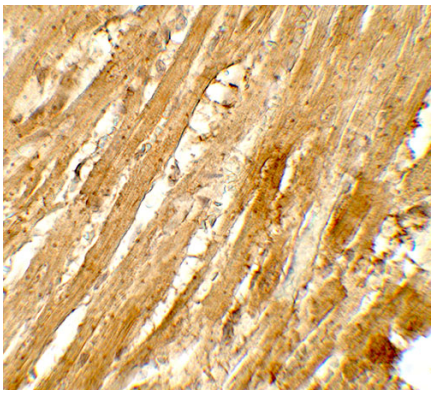
References

Kwiatkowski BA, Ragoczy T, Ehly J, et al. Identification and cloning of a novel chromatin-associated protein partner of Epstein-Barr nuclear protein 2. Exp. Cell Res. 2004; 300:223-33.
Kueng S, Hegemann B, Peters BH, et al. Wapl controls the dynamic association of cohesion with chromatin. Cell 2006; 127:955-67.
Gandhi R, Gillespie PJ, and Hirano T. Human Wapl is a cohesin-binding protein that promotes sister-chromatid resolution in mitotic prophase. Curr. Biol. 2006; 16:2406-17.
Oikawa K, Ohbayashi T, Kiyono T, et al. Expression of a novel human gene, human wings apart-like (hWAPL), is associated with cervical carcinogenesis and tumor progression. Cancer Res. 2004; 64:3545-9.

Images

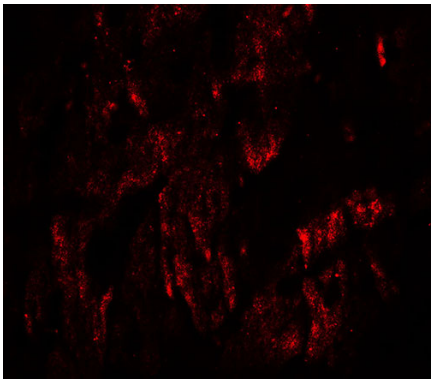


Western blot analysis of WAPL in A20 cell lysate with WAPL antibody at (A) 1 and (B) 2 µg/ml.



Immunohistochemistry of WAPL in rat heart tissue with WAPL antibody at 5 µg/mL.

Immunofluorescence of WAPL in rat heart tissue with WAPL antibody at 20 µg/mL.



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