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FIGNL1 Rabbit pAb

Catalog # AP97842

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q6PIW4
Other Accession	Q6PIW4
Reactivity	Human
Predicted	Rat, Pig, Mouse, Chicken, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	74077
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human FIGNL1
Epitope Specificity	501-600/674
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the AAA ATPase family.
SUBUNIT	Hexamer (By similarity).
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	FIGNL1 is a 674 amino acid protein belonging to the AAA ATPase family. FIGNL1 exists as a hexamer that undergoes alternative splicing to produce two isoforms. FIGNL1 utilizes magnesium as a cofactor and is phosphorylated upon DNA damage, probably by ATM or ATR. FIGNL1 is suggested to regulate osteoblast proliferation and differentiation. FIGNL1 is encoded by a gene located on human chromosome 7, which consists about 158 milllion bases, encodes over 1000 genes and makes up about 5% of the human genome. Chromosome 7 has been linked to Osteogenesis imperfecta, Pendred syndrome, Lissencephaly, Citrullinemia and Shwachman-Diamond syndrome. The deletion of a portion of the q arm of chromosome 7 is associated with Williams-Beuren syndrome, a condition characterized by mild mental retardation, an unusual comfort and friendliness with strangers and an elfin appearance. Deletions of portions of the q arm of chromosome 7 are also seen in a number of myeloid disorders including cases of acute myelogenous leukemia and myelodysplasia.

Additional Information

Gene ID	63979
Other Names	FIGL1_HUMAN; FIGNL1; 3.6.4.-; FIGL1_MOUSE; fidgetin like 1; fidgetin-like 1
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When

Storage	reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	FIGNL1 {ECO:0000303|PubMed:23754376, ECO:0000312|HGNC:HGNC:13286}
Function	ATPase that maintains genome stability by acting as a key regulator of DNA double-strand break (DSB) repair via homologous recombination (HR) (PubMed:23754376, PubMed:37256941, PubMed:37347663, PubMed:37515771, PubMed:37556550, PubMed:38286805, PubMed:38597669, PubMed:39636933, PubMed:41166468). Regulates HR by mediating disassembly of RAD51 filaments from DNA and chromatin, thereby preventing DNA damage-independent RAD51 loading and persistent DNA accumulation of RAD51 recombinases (PubMed:37256941, PubMed:37347663, PubMed:37515771, PubMed:37556550, PubMed:38286805, PubMed:38597669, PubMed:39636933, PubMed:41166468). Also regulates HR during meiosis by mediating dissociation of DMC1 filaments from DNA (By similarity). May regulate osteoblast proliferation and differentiation (By similarity).
Cellular Location	Chromosome. Nucleus. Cytoplasm Cytoplasm, perinuclear region {ECO:0000250|UniProtKB:Q8BPY9} Note=Recruited at DSB sites independently of BRCA2, RAD51 and RAD51 paralogs in a H2AX-dependent manner.

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