

Anti-PIF1 Antibody

Catalog # AP51733

Product Information

Application	WB
Primary Accession	Q9H611
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	69799

Additional Information

Gene ID	80119
Other Names	C15orf20; ATP-dependent DNA helicase PIF1; DNA repair and recombination helicase PIF1; PIF1/RRM3 DNA helicase-like protein
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human PIF1. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000)
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	PIF1 {ECO:0000255 HAMAP-Rule:MF_03176}
Synonyms	C15orf20
Function	DNA-dependent ATPase and 5'-3' DNA helicase required for the maintenance of both mitochondrial and nuclear genome stability. Efficiently unwinds G-quadruplex (G4) DNA structures and forked RNA-DNA hybrids. Resolves G4 structures, preventing replication pausing and double-strand breaks (DSBs) at G4 motifs. Involved in the maintenance of telomeric DNA. Inhibits telomere elongation, de novo telomere formation and telomere addition to DSBs via catalytic inhibition of telomerase. Reduces the processivity of telomerase by displacing active telomerase from DNA ends. Releases telomerase by unwinding the short telomerase RNA/telomeric DNA hybrid that is the intermediate in the telomerase reaction. Possesses an intrinsic strand annealing activity.
Cellular Location	Nucleus {ECO:0000255 HAMAP-Rule:MF_03176,

ECO:0000269|PubMed:16522649, ECO:0000269|PubMed:17172855,
ECO:0000269|PubMed:17827721}

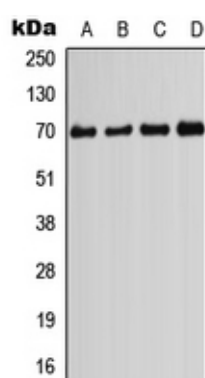
Tissue Location

Weak ubiquitous expression.

References

Zhang D.-H.,et al.Nucleic Acids Res. 34:1393-1404(2006).
Gu Y.,et al.Nucleic Acids Res. 36:6295-6308(2008).
Snow B.E.,et al.Submitted (DEC-2003) to the EMBL/GenBank/DDBJ databases.
Futami K.,et al.Submitted (JUL-2004) to the EMBL/GenBank/DDBJ databases.
Ota T.,et al.Nat. Genet. 36:40-45(2004).

Images



Western blot analysis of PIF1 expression in HeLa (A), HEK293T (B), Raw264.7 (C), PC12 (D) whole cell lysates. (Predicted band size: 69 kD; Observed band size: 70 kD)

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