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PIF1 (N) Antibody, Rabbit Polyclonal

Cat#: R3357-1

Quantity: 100 ul

Predicted | Observed M.W.: 70 kDa

Lot#: Refer to vial

Application: WB

Uniprot ID: Q9H611

Background:

PIF1 is a DNA-dependent ATPase and 5'-3' DNA helicase required for the maintenance of both mitochondrial and nuclear genome stability. PIF1 efficiently unwinds G-quadruplex (G4) DNA structures and forked RNA-DNA hybrids. PIF1 resolves G4 structures, preventing replication pausing and double-strand breaks (DSBs) at G4 motifs. Involved in the maintenance of telomeric DNA. PIF1 inhibits telomere elongation, de novo telomere formation and telomere addition to DSBs via catalytic inhibition of telomerase. PIF1 also reduces the processivity of telomerase by displacing active telomerase from DNA ends. PIF1 releases telomerase by unwinding the short telomerase RNA/telomeric DNA hybrid that is the intermediate in the telomerase reaction. PIF1 possesses an intrinsic strand annealing activity.

Other Names:

ATP-dependent DNA helicase PIF1, helicase PIF1, PIF1/RRM3 DNA helicase-like protein, C15orf20

Source and Purity:

Rabbit polyclonal antibodies were produced by immunizing animals with a GST-fusion protein containing the N-terminal region of human PIF1. Antibodies were purified by affinity purification using immunogen.

Storage Buffer and Condition:

Supplied in 1 x PBS (pH 7.4), 100 ug/ml BSA, 40% Glycerol, 0.01% NaN₃. Store at -20 °C. Stable for 6 months from date of receipt.

Species Specificity:

Human, Mouse

Tested Applications:

WB: 1:500-1:2,000 (detect endogenous protein*)

*: The apparent protein size on WB may be different from the calculated M.W. due to modifications.

Product Data:

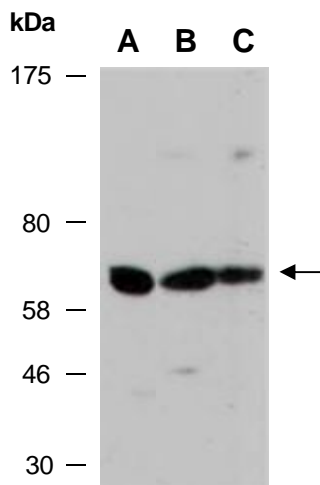


Fig 1. Western blot analysis of total cell extracts from A) mouse thymus; B) human HeLa; C) human Jurkat; using anti-PIF1 (N) (R3357-1) at RT for 2 h.