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# C4orf27 Rabbit pAb

C4orf27 Rabbit pAb
Catalog # AP59462

## Product Information

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| **Application** | IHC-P, IHC-F, IF |
| **Primary Accession** | Q9NWY4 |
| **Reactivity** | Human, Mouse |
| **Predicted** | Rat, Dog, Rabbit, Chicken, Horse |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 39436 |
| **Physical State** | Liquid |
| **Immunogen** | KLH conjugated synthetic peptide derived from human C4orf27 |
| **Epitope Specificity** | 151-250/346 |
| **Isotype** | IgG |
| **Purity** | affinity purified by Protein A |
| **Buffer** | 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. |
| **SUBCELLULAR LOCATION** | Nucleus |
| **Important Note** | This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. |
| **Background Descriptions** | C4orf27 is a 346 amino acid protein that is encoded by a gene that maps to human chromosome 4. Human chromosome 4 represents approximately 6% of the human genome and contains nearly 900 genes. Notably, the Huntingtin gene, which is found to encode an expanded glutamine tract in cases of Huntington's disease, is located on chromosome 4. FGFR-3 is also encoded by a gene that maps to human chromosome 4 and has been associated with thanatophoric dwarfism, achondroplasia, Muenke syndrome and bladder cancer. Chromosome 4 is also tied to Ellis-van Creveld syndrome, methylmalonic acidemia and polycystic kidney disease. |

## Additional Information

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| **Gene ID** | 54969 |
| **Other Names** | Histone PARylation factor 1, HPF1 {ECO:0000303\|PubMed:27067600, ECO:0000312\|HGNC:HGNC:26051} |
| **Dilution** | IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500 |
| **Storage** | Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When 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. |

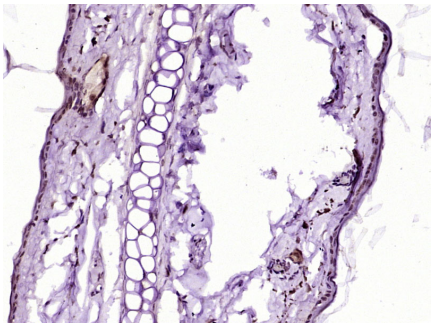
## Protein Information

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| **Name** | HPF1 {ECO:0000303\|PubMed:27067600, ECO:0000312\|HGNC:HGNC:26051} |
| **Function** | Cofactor for serine ADP-ribosylation that confers serine specificity on PARP1 and PARP2 and plays a key role in DNA damage response (PubMed:28190768, PubMed:29480802, PubMed:29954836, PubMed:32028527, PubMed:32939087, PubMed:33186521, PubMed:33589610, PubMed:33683197, PubMed:34108479, PubMed:34210965, PubMed:34486521, PubMed:34625544, PubMed:34732825, PubMed:34795260, PubMed:34874266). Initiates the repair of double-strand DNA breaks: recruited to DNA damage sites by PARP1 and PARP2 and switches the amino acid specificity of PARP1 and PARP2 from aspartate or glutamate to serine residues, licensing serine ADP-ribosylation of target proteins (PubMed:28190768, PubMed:29480802, PubMed:29954836, PubMed:32028527, PubMed:32939087, PubMed:33589610, PubMed:33683197, PubMed:34486521, PubMed:34625544, PubMed:34732825, PubMed:34795260, PubMed:34874266). Serine ADP-ribosylation of target proteins, such as histones, promotes decompaction of chromatin and the recruitment of repair factors leading to the reparation of DNA strand breaks (PubMed:27067600, PubMed:28190768, PubMed:32939087, PubMed:33589610). Serine ADP- ribosylation of proteins constitutes the primary form of ADP- ribosylation of proteins in response to DNA damage (PubMed:29480802). HPF1 acts by completing the active site of PARP1 and PARP2: forms a composite active site composed of residues from HPF1 and PARP1 or PARP2 (PubMed:32028527, PubMed:33589610). While HPF1 promotes the initiation of serine ADP-ribosylation, it restricts the polymerase activity of PARP1 and PARP2 in order to limit the length of poly-ADP-ribose chains (PubMed:33683197, PubMed:34732825, PubMed:34795260). HPF1 also promotes tyrosine ADP-ribosylation, probably by conferring tyrosine specificity on PARP1 (PubMed:29954836, PubMed:30257210). |
| **Cellular Location** | Chromosome. Nucleus Note=Localizes to DNA damage sites; chromatin localization is dependent on PARP1 and PARP2. |

## Background

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## Images



Paraformaldehyde-fixed, paraffin embedded (Mouse skin); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (C4orf27) Polyclonal Antibody, Unconjugated (AP59462) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

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