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Anti-RFWD3 Antibody

Catalog # AP60383

Product Information

Application	WB, IHC
Primary Accession	Q6PCD5
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	85094

Additional Information

Gene ID	55159
Other Names	RNF201; E3 ubiquitin-protein ligase RFWD3; RING finger and WD repeat domain-containing protein 3; RING finger protein 201
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human RFWD3. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000), IHC (1/100 - 1/200) IHC~~WB (1/500 - 1/1000), IHC (1/100 - 1/200)
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

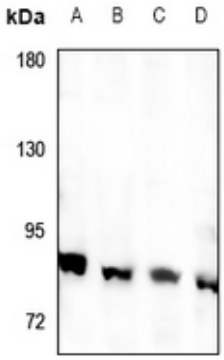
Name	RFWD3 (HGNC:25539)
Function	E3 ubiquitin-protein ligase required for the repair of DNA interstrand cross-links (ICL) in response to DNA damage (PubMed:21504906, PubMed:21558276, PubMed:26474068, PubMed:28575657, PubMed:28575658, PubMed:33321094). Plays a key role in RPA-mediated DNA damage signaling and repair (PubMed:21504906, PubMed:21558276, PubMed:26474068, PubMed:28575657, PubMed:28575658, PubMed:28691929). Acts by mediating ubiquitination of the RPA complex (RPA1, RPA2 and RPA3 subunits) and RAD51 at stalled replication forks, leading to remove them from DNA damage sites and promote homologous recombination (PubMed:26474068, PubMed:28575657, PubMed:28575658). Also mediates the ubiquitination of p53/TP53 in the late response to DNA damage, and acts as a positive regulator of p53/TP53 stability, thereby regulating the G1/S DNA damage checkpoint (PubMed:20173098). May act by catalyzing the formation of short polyubiquitin chains on p53/TP53 that are

not targeted to the proteasome (PubMed:20173098). In response to ionizing radiation, interacts with MDM2 and enhances p53/TP53 ubiquitination, possibly by restricting MDM2 from extending polyubiquitin chains on ubiquitinated p53/TP53 (PubMed:20173098). Required to translesion DNA synthesis across DNA-protein cross-link adducts by catalyzing ubiquitination of proteins on single-stranded DNA (ssDNA) (PubMed:33321094).

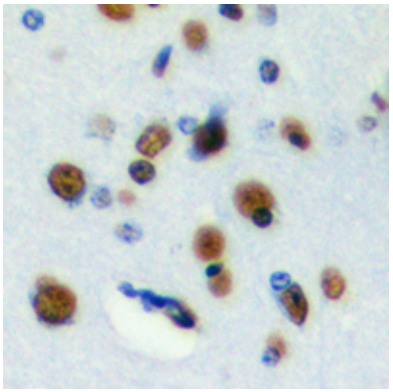
Cellular Location

Nucleus. Nucleus, PML body. Cytoplasm. Note=In undamaged cells, found both in the cytoplasm and in the nucleus, partially associated with PML nuclear bodies (PubMed:21558276). In response to replication block, such as that caused by hydroxyurea treatment, or to DNA damage caused by ionizing radiations or doxorubicin, recruited to the nucleus, to stalled replication forks or to sites of DNA repair (PubMed:21504906, PubMed:28575657). This recruitment depends upon RPA2 (PubMed:21504906)

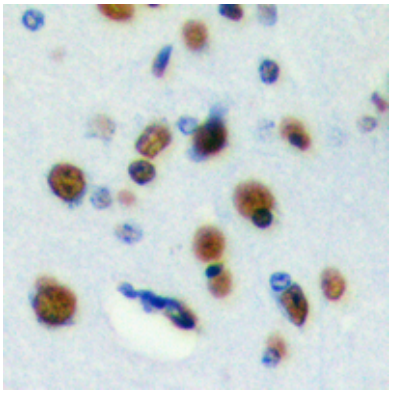
Images



Western blot analysis of RFWD3 expression in K562 (A), HEK293T (B), H9C2 (C), SP20 (D) whole cell lysates. (Predicted band size: 85 kD; Observed band size: 85 kD)



Immunohistochemical analysis of RFWD3 staining in human brain formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



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