

# CPTC-RAD18-3(CAB080161)

**Uniprot ID:** Q9NS91

**Protein name:** RAD18\_HUMAN

**Full name:** E3 ubiquitin-protein ligase RAD18

**Function:** E3 ubiquitin-protein ligase involved in postreplication repair of UV-damaged DNA. Postreplication repair functions in gap-filling of a daughter strand on replication of damaged DNA. Associates to the E2 ubiquitin conjugating enzyme UBE2B to form the UBE2B-RAD18 ubiquitin ligase complex involved in mono-ubiquitination of DNA-associated PCNA on 'Lys-164'. Has ssDNA binding activity.

**Subcellular location:**

Nucleus (*experimental evidence*)

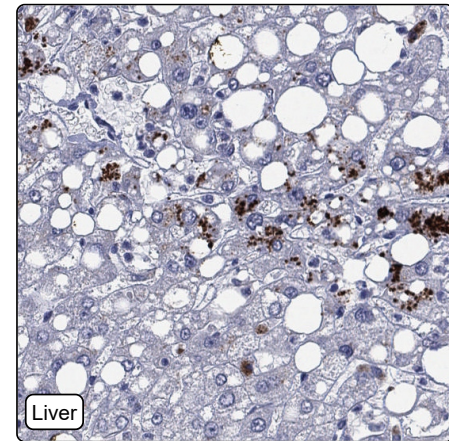
Cytoplasm > Cytoskeleton > Microtubule organizing center > Centrosome (*experimental evidence*)

**NOTE:** Associates with chromatin (PubMed:25931565). Colocalizes with SLF1 in the nucleus and to centrosomes (PubMed:15632077). Relocalizes with SLF1 to nuclear foci in response to DNA damage (PubMed:22036607). Accumulates with the SLF1-SLF2 and SMC5-SMC6 complexes at replication-coupled DNA interstrand repair and DNA double-strand breaks (DSBs) sites on chromatin in a ubiquitin-dependent manner (PubMed:25931565).

**Protein existence:** Experimental evidence at protein level

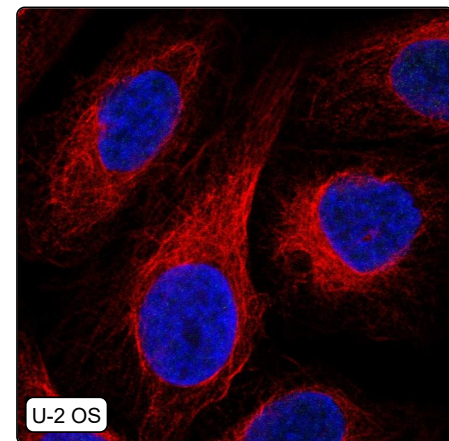
**Comment:**

## Immunohistochemistry



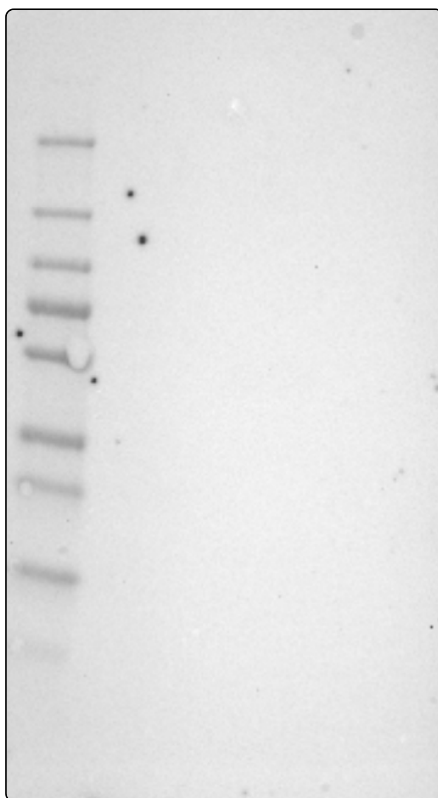
<b>IHC protocol:</b>	HIER pH6, Dilution 1:190
<b>IHC test staining:</b>	Lipofuscin positivity in liver, remaining tissues were negative.
<b>Literature conformance:</b>	Not consistent with gene/protein characterization data
<b>Literature significance:</b>	
<b>RNA similarity:</b>	Very low consistency between antibody staining and RNA expression data
<b>RNA tissue specificity:</b>	Low tissue specificity
<b>RNA tissue distribution:</b>	Detected in many
<b>IHC Sibling similarity:</b>	Other antibody shows dissimilar IHC staining pattern

## Immunofluorescence



<b>IF Overlay:</b>	antibody (green), anti-tubulin (red) and DAPI (blue)
<b>IF main location:</b>	
<b>IF additional location:</b>	
<b>IF approved for publication on HPA:</b>	No
<b>IF in SiHa:</b>	Negative
<b>IF in SK-MEL-30:</b>	Negative
<b>IF in U-2 OS:</b>	Negative

# Western blot



<b>WB Size markers (kDa):</b>	250, 130, 100, 70, 55, 35, 25, 15, 10
<b>WB Lanes:</b>	Marker (1), RT4 (2), U-251 MG (3), Plasma (4), Liver (5), Tonsil (6)
<b>WB Target weight (kDa):</b>	6, 9, 10, 14, 15, 56
<b>WB Validation:</b>	Uncertain (No bands detected.)