

CPTC-RAD18-5(CAB080162)

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*)

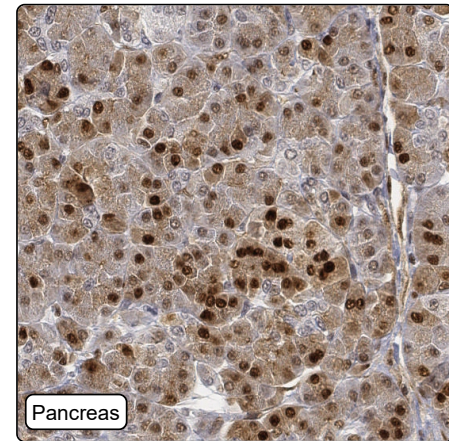
Cytoplasm > Cytoskeleton > Microtubule organizing center > Centrosome (*experimental evidence*)

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

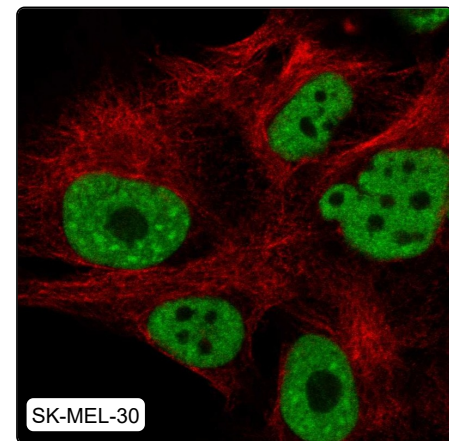
Comment:

Immunohistochemistry



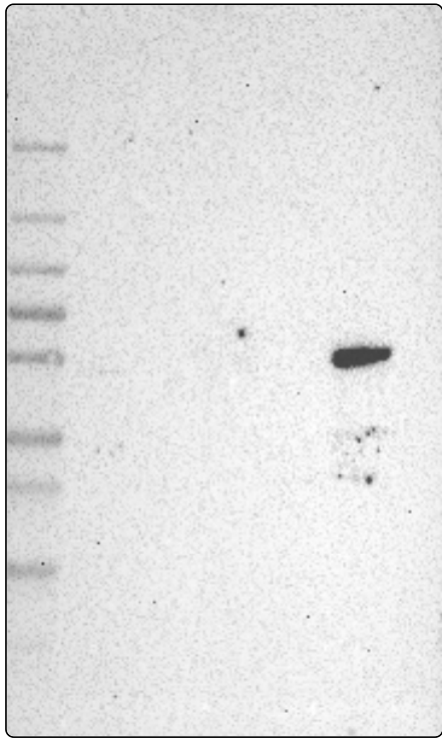
IHC protocol:	HIER pH6, Dilution 1:150
IHC test staining:	Moderate to strong cytoplasmic positivity in testis and gastrointestinal tract. Additional strong nuclear positivity in pancreas.
Literature conformance:	Not consistent with gene/protein characterization data
Literature significance:	
RNA similarity:	Low consistency between antibody staining and RNA expression data
RNA tissue specificity:	Low tissue specificity
RNA tissue distribution:	Detected in many
IHC Sibling similarity:	Other antibody shows dissimilar IHC staining pattern

Immunofluorescence



IF Overlay:	antibody (green), anti-tubulin (red) and DAPI (blue)
IF main location:	Nucleoplasm - 3: Supportive (auto)
IF additional location:	Nuclear speckles - 3: Supportive (auto)
IF approved for publication on HPA:	Yes
IF in SiHa:	Nucleoplasm
IF in SK-MEL-30:	Nucleoplasm Nuc speckles
IF in U-2 OS:	Nucleoplasm Nuc speckles

Western blot



WB Size markers (kDa):	250, 130, 100, 70, 55, 35, 25, 15, 10
WB Lanes:	Marker (1), RT4 (2), U-251 MG (3), Plasma (4), Liver (5), Tonsil (6)
WB Target weight (kDa):	6, 9, 10, 14, 15, 56
WB Validation:	Supported (Single band corresponding to the predicted size in kDa (+/-20%.))