

RAP80 (CT) antibody (pAb)

Rabbit Anti-Human/Mouse RAP80 (CT)

Instruction Manual

Catalog Number	PK-AB718-4325
Synonyms	RAP80 Antibody: Receptor associated protein 80, Ubiquitin interaction motif-containing 1, UIMC1
Description	RAP80 was initially identified as zinc-finger containing nuclear protein that is highly expressed in testis and interacts with the retinoid-related testis-associated receptor (RTR). Later experiments revealed that RAP80 is recruited by the Coiled-coil domain 98 (CCDC98) protein to the breast cancer-1 protein BRCA1, allowing the formation of BRCA1 foci in response to DNA damage caused by ionizing radiation. Both RAP80 and CCDC98 are required for DNA damage resistance, G2-M checkpoint control, and DNA repair. Cells depleted of either RAP80 or CCDC98 exhibited increased sensitivity to ionizing radiation, although not as much as in BRCA1-depleted cells, suggesting that RAP80 and CCDC98 control only part of the DNA damage response role of BRCA1. At least four isoforms of RAP80 are known to exist.
Quantity	100 µg
Source / Host	Rabbit
Immunogen	RAP80 antibody was raised in rabbits against a 17 amino acid peptide from near the carboxy terminus of human RAP80.
Purification Method	Affinity chromatography purified via peptide column.
Clone / IgG Subtype	Polyclonal antibody
Species Reactivity	Human, Mouse
Specificity	
Formulation	Antibody is supplied in PBS containing 0.02% sodium azide.
Reconstitution	During shipment, small volumes of antibody will occasionally become entrapped in the seal of the product vial. For products with volumes of 200 µl or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the container's cap.
Storage & Stability	Antibody can be stored at 4°C for three months and at -20°C for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Applications	E, WB, IHC, IF INote: Antibody might be suitable for other applications not tested so far. Optimal concentrations for each application have to be determined individually. RAP80 antibody can be used for detection of RAP80 by Western blot at 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL. For immunofluorescence start at 20 µg/mL.
Images	Available upon request.
References	Yan Z, Kim YS, and Jetten AM. RAP80, a novel nuclear protein that interacts with the retinoid-related testis-associated receptor. <i>J. Biol. Chem.</i> 2002; 277:32379-88. Wang B, Matsuoka S, Balliff BA, et al. Abraxas and RAP80 form a BRCA1 protein complex required for the DNA damage response. <i>Science</i> 2007; 316:1194-1198. Kim H, Huang J, and Chen J. CCDC98 is a BRCA1-BRCT domain-binding protein involved in the DNA damage response. <i>Nat. Struct. Mol. Biol.</i> 2007; 14:710-5. Liu Z, Wu J, and Yu X. CCDC98 targets BRCA1 to DNA damage sites. <i>Nat. Struct. Mol. Biol.</i> 2007; 14:716-20.
Images	Available upon request.
Related Products	Cat.No. PK-AB718-4325P; RAP80 Peptide Cat.No. PK-AB718-1210; 293 Cell Lysate

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