10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# CEP164 Rabbit pAb

Catalog # AP98749

## Product Information

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| **Application** | IHC-P, IHC-F, IF, E |
| **Primary Accession** | Q9UPV0 |
| **Other Accession** | Q9UPV0 |
| **Predicted** | Rat, Human, Mouse |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 164314 |
| **Physical State** | Liquid |
| **Immunogen** | KLH conjugated synthetic peptide derived from human CEP128 |
| **Epitope Specificity** | 1101-1200/1460 |
| **Isotype** | IgG |
| **Purity** | affinity purified by Protein A |
| **Buffer** | 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. |
| **SIMILARITY** | Contains 1 WW domain. |
| **Post-translational modifications** | Phosphorylation at Ser-186 is induced upon DNA-damage caused by treatment with IR irradiation, UV irradiation, hydroxyurea or amphidicolin. Also MDC1-mediated chromatin remodeling is critical for DNA damage-induced phosphorylation. |
| **Important Note** | This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. |
| **Background Descriptions** | This gene encodes a centrosomal protein involved in microtubule organization, DNA damage response, and chromosome segregation. The encoded protein is required for assembly of primary cilia and localizes to mature centrioles. Defects in this gene are a cause of nephronophthisis-related ciliopathies. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Dec 2012] |

## Additional Information

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| **Gene ID** | 22897 |
| **Other Names** | NPHP15; D030051D21; RGD1560988; RGD1561243; CE164_HUMAN; CEP164; KIAA1052; CE164_MOUSE; centrosomal protein 164; centrosomal protein 164kDa |
| **Dilution** | IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000 |
| **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** | CEP164 |
| **Synonyms** | KIAA1052, NPHP15 |
| **Function** | Plays a role in microtubule organization and/or maintenance for the formation of primary cilia (PC), a microtubule-based structure that protrudes from the surface of epithelial cells. Plays a critical role in G2/M checkpoint and nuclear divisions. A key player in the DNA damage-activated ATR/ATM signaling cascade since it is required for the proper phosphorylation of H2AX, RPA, CHEK2 and CHEK1. Plays a critical role in chromosome segregation, acting as a mediator required for the maintenance of genomic stability through modulation of MDC1, RPA and CHEK1. |
| **Cellular Location** | Cytoplasm, cytoskeleton, microtubule organizing center, centrosome, centriole. Nucleus Note=Localizes specifically to very distally located appendage structures on the mature centriole from which initiate PC formation (PubMed:26337392). Persisted at centrioles throughout mitosis Expressed in chromatin-enriched nuclear fraction of HeLa cells. In response to DNA damage, it translocates to nuclear foci that contain the DNA damage response proteins KAT5/TIP60 and CHEK1 |
| **Tissue Location** | Expressed in several cell lines. |

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