Datasheet for ABIN7599424

anti-CHEK2 antibody (AA 1-474)

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Overview

Quantity:	100 µg
Target:	CHEK2
Binding Specificity:	AA 1-474
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This CHEK2 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunofluorescence (IF), Immunocytochemistry (ICC)

Product Details

Purpose:	Anti-CHEK2 Antibody Picoband®
Immunogen:	E.coli-derived human CHEK2 recombinant protein (Position: M1-R474).
Isotype:	IgG
Cross-Reactivity (Details):	No cross-reactivity with other proteins.
Characteristics:	Anti-CHEK2 Antibody Picoband® (ABIN7599424). Tested in ELISA, IF, ICC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Purification:	Immunogen affinity purified.

Target Details

Target:	CHEK2
Alternative Name:	CHEK2 (CHEK2 Products)
Background:	Synonyms: Agouti-related protein, Agrp, Agrt, Art Tissue Specificity: Expressed in arcuate nucleus and median eminence, adrenal gland (medulla), hypothalamus, testis, and lung. Background: CHK2, a protein kinase that is activated in response to DNA damage, is involved in cell cycle arrest. Mapped on 22q12.1, CHK2 has a potential regulatory region rich in SQ and TQ amino acid pairs. It regulates BRCA1 function after DNA damage by phosphorylating serine-988 of BRCA1. Additionally, CHK2 can be modified by phosphorylation and activated in response to ionizing radiation, and can be also modified in response to hydroxyurea treatment. Furthermore, oligomerization of CHEK2 increases the efficiency of transautophosphorylation, resulting in the release of active CHEK2 monomers that proceed to enforce checkpoint control in irradiated cells. Moreover, CHK2 is a tumor suppressor gene conferring predisposition to sarcoma, breast cancer, and brain tumors, and that their observations provided a link between the central role of p53 inactivation in human cancer and the well-defined G2 checkpoint in yeast. There is a wide expression of small amounts of CHK2 mRNA with larger amounts in human testis, spleen, colon, and peripheral blood leukocytes.
Molecular Weight:	62 kDa
Gene ID:	11200
UniProt:	O96017
Pathways:	p53 Signaling, Apoptosis, Cell Division Cycle

Application Details

Application Notes:	Western blot, 0.25-0.5 µg/mL, Human Immunocytochemistry/Immunofluorescence, 5 µg/mL, Human ELISA, 0.1-0.5 µg/mL, - 1. Ahn, J.-Y., Li, X., Davis, H. L., Canman, C. E. : Phosphorylation of threonine 68 promotes oligomerization and autophosphorylation of the Chk2 protein kinase via the forkhead-associated domain. J. Biol. Chem. 277: 19389-19395, 2002. 2. Bell, D. W., Varley, J. M., Szydlo, T. E., Kang, D. H., Wahrer, D. C. R., Shannon, K. E., Lubratovich, M., Verselis, S. J., Isselbacher, K. J., Fraumeni, J. F., Birch, J. M., Li, F. P., Garber, J. E., Haber, D. A. : Heterozygous germ line hCHK2 mutations in Li-Fraumeni syndrome. Science 286: 2528-2531, 1999. 3. Brown, A. L., Lee, C.-H., Schwarz, J. K., Mitiku, N., Piwnica-Worms, H., Chung, J. H. : A human Cds1-related kinase

Application Details

	that functions downstream of ATM protein in the cellular response to DNA damage. Proc. Nat. Acad. Sci. 96: 3745-3750, 1999. 4. Lee, J.-S., Collins, K. M., Brown, A. L., Lee, C.-H., Chung, J. H. : hCds1-mediated phosphorylation of BRCA1 regulates the DNA damage response. Nature 404: 201-204, 2000.
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Adding 0.2 mL of distilled water will yield a concentration of 500 µg/mL.
Concentration:	500 µg/mL
Buffer:	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Storage:	4 °C,-20 °C
Storage Comment:	At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.