Datasheet for ABIN1724714

anti-CHEK2 antibody (AA 481-531)

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Overview

Quantity:	100 µL
Target:	CHEK2
Binding Specificity:	AA 481-531
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CHEK2 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Immunocytochemistry (ICC)

Product Details

Immunogen:	Purified recombinant fragment of human CHK2 (aa481-531) expressed in E. coli.
Clone:	1C12B8
Isotype:	IgG2b
Purification:	purified

Target Details

Target:	CHEK2
Alternative Name:	CHK2 (CHEK2 Products)
Background:	Description: CHK2: CHK2 checkpoint homolog (S. pombe). In response to DNA damage and replication blocks, cell cycle progression is halted through the control of critical cell cycle

Target Details

	regulators. The protein encoded by this gene is a cell cycle checkpoint regulator and putative tumor suppressor. It contains a forkhead-associated protein interaction domain essential for activation in response to DNA damage and is rapidly phosphorylated in response to replication blocks and DNA damage. When activated, the encoded protein is known to inhibit CDC25C phosphatase, preventing entry into mitosis, and has been shown to stabilize the tumor suppressor protein p53, leading to cell cycle arrest in G1. In addition, this protein interacts with and phosphorylates BRCA1, allowing BRCA1 to restore survival after DNA damage. Mutations in this gene have been linked with Li-Fraumeni syndrome, a highly penetrant familial cancer phenotype usually associated with inherited mutations in TP53. Also, mutations in this gene are thought to confer a predisposition to sarcomas, breast cancer, and brain tumors. This nuclear protein is a member of the CDS1 subfamily of serine/threonine protein kinases. Three transcript variants encoding different isoforms have been found for this gene. Aliases: CDS1, LFS2, CHEK2
Molecular Weight:	61 kDa
Gene ID:	11200
HGNC:	11200
Pathways:	p53 Signaling, Apoptosis, Cell Division Cycle

Application Details

Application Notes:	ELISA: 1:10000, WB: 1:500 - 1:2000, IHC: 1:200 - 1:1000, ICC: 1:200 - 1:1000
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	Ascitic fluid containing 0.03 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C/-20 °C
Storage Comment:	4°C, -20°C for long term storage

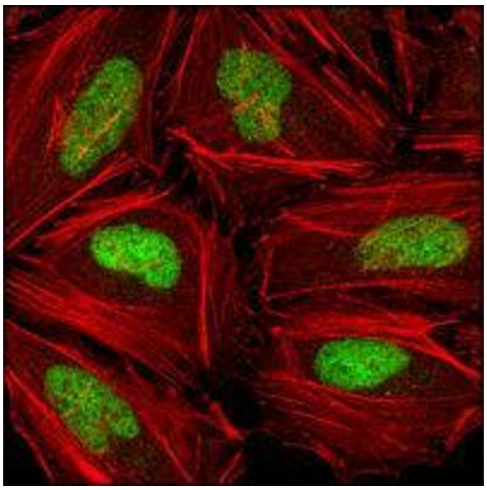
Publications

Product cited in:

Armstrong, Corazzari, Martin, Pagliarini, Falasca, Hill, Ellis, Al Sabah, Redfern, Fimia, Piacentini, Lovat: "Oncogenic B-RAF signaling in melanoma impairs the therapeutic advantage of autophagy inhibition." in: **Clinical cancer research : an official journal of the American Association for Cancer Research**, Vol. 17, Issue 8, pp. 2216-26, (2011) (PubMed).

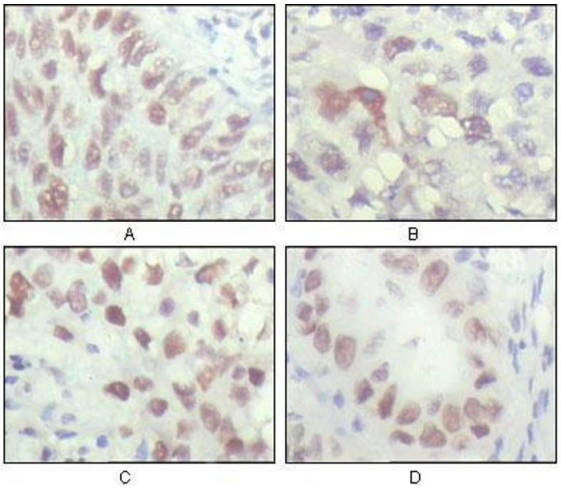
Di Bartolomeo, Corazzari, Nazio, Oliverio, Lisi, Antonioli, Pagliarini, Matteoni, Fuoco, Giunta, DAmelio, Nardacci, Romagnoli, Piacentini, Cecconi, Fimia: "The dynamic interaction of AMBRA1 with the dynein motor complex regulates mammalian autophagy." in: **The Journal of cell biology**, Vol. 191, Issue 1, pp. 155-68, (2010) (PubMed).

Images



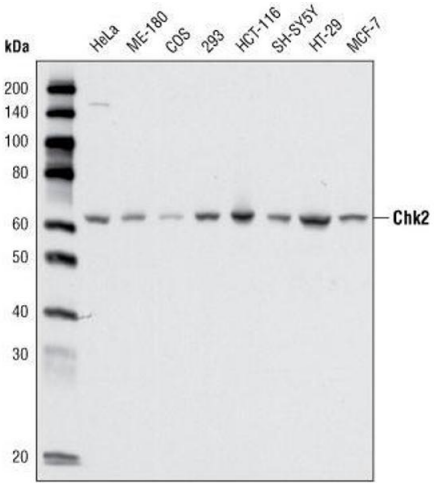
Immunofluorescence

Image 1. Confocal immunofluorescence analysis of Hela cells using CHK2 mouse mAb (green), showing nuclear localization. Red: Actin filaments have been labeled with DY-554 phalloidin.



Immunohistochemistry

Image 2. Immunohistochemical analysis of paraffin-embedded human lung carcinoma (A), liver carcinoma (B), breast carcinoma (C) and kiney carcinoma (D), showing nuclear localization with DAB staining using CHK2 mouse mAb.



Western Blotting

Image 3. Western blot analysis using CHK2 mouse mAb against cell lysate from various cell types.