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Product datasheet for TA336399

Chk2 (CHEK2) Mouse Monoclonal Antibody [Clone ID: 73C175.1.1]

Product data:

Product Type:	Primary Antibodies
Clone Name:	73C175.1.1
Applications:	FC, ICC/IF, IHC, WB
Recommended Dilution:	Immunohistochemistry, Western Blot: 2 ug/ml, Immunohistochemistry-Paraffin, Immunocytochemistry/ Immunofluorescence: 2-5 ug/ml, Flow Cytometry: 1-5 ug/ml
Reactivity:	Human, Mouse
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	A portion of amino acids 100-150 of human Chk2 protein was used as immunogen for this antibody.
Formulation:	PBS containing 0.05% BSA, 0.05% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Protein G purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	checkpoint kinase 2
Database Link:	NP_009125 Entrez Gene 50883 MouseEntrez Gene 11200 Human O96017

View online »

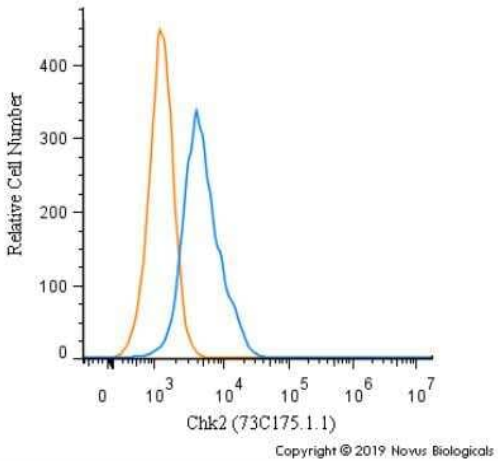
Background: Chk2 (checkpoint kinase 2) is the mammalian homolog of the Saccharomyces cerevisiae Rad53 and is required for the DNA damage and replication checkpoints (1). In response to low-dose ionizing radiation (IR), which occurs in an ataxia telangiectasia mutated (ATM)-dependent manner, Chk2 can phosphorylate the mitosis-inducing phosphatase Cdc25C on an inhibitory site, blocking entry into mitosis, and p53 on a regulatory site, causing G1 arrest (2,3). In human tissues, Chk2 is homogeneously expressed in renewing cell populations such as epidermis or intestine, heterogeneous in conditionally renewing tissues, and absent or at low level in static tissues such as muscle or brain (4). Mutations in Chk2 inactivates DNA damage checkpoint pathway involving Chk2 in lung cancer suggesting that reduced expression of Chk2 may be responsible for the development of lung cancer (5). The Chk2-/- knockout cells are resistant to DNA damage-induced apoptosis, defective for p53 stabilization and for induction of p53-dependent transcripts such as p21 in response to gamma irradiation (6).

Synonyms: CDS1; CHK2; hCds1; HuCds1; LFS2; PP1425; RAD53

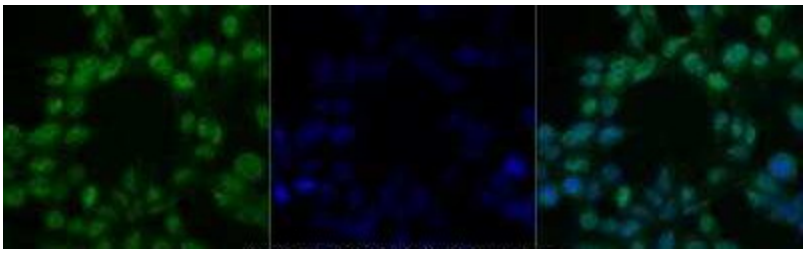
Protein Families: Druggable Genome, Protein Kinase, Stem cell - Pluripotency

Protein Pathways: Cell cycle, p53 signaling pathway

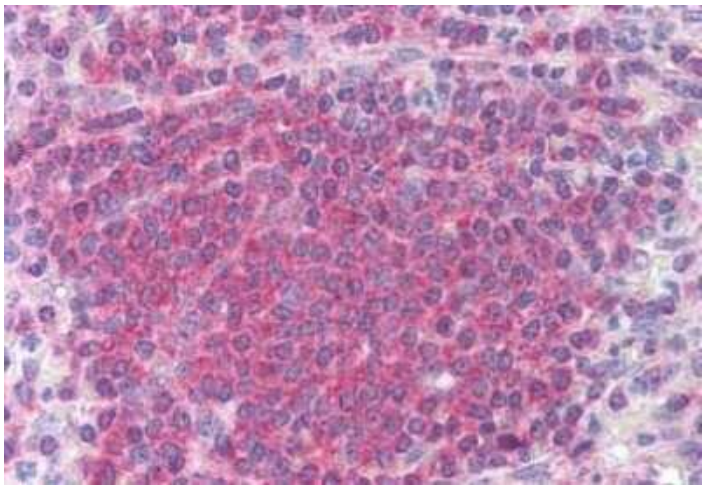
Product images:



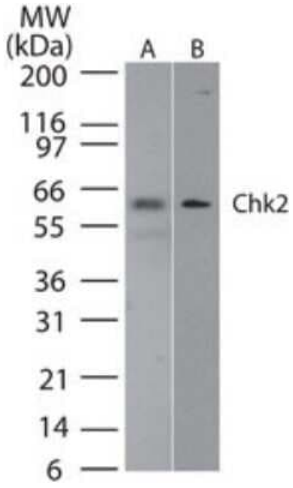
Flow Cytometry: Chk2 Antibody (73C175.1.1) TA336399 - An intracellular stain was performed on Hek293 cells with Chk2 [73C175.1.1] Antibody TA336399 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 2.5 ug/mL for 30 minutes at room temperature, followed by Mouse IgG (H+L) Cross-Adsorbed Secondary Antibody, Dylight 550.



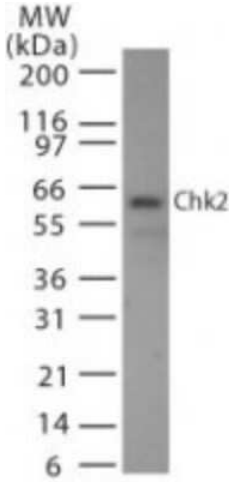
Immunocytochemistry/Immunofluorescence: Chk2 Antibody (73C175.1.1) TA336399 - Hek293 cells were fixed for 10 minutes using 10% formalin and then permeabilized for 5 minutes using 1X PBS + 0.5% Triton-X100. The cells were incubated with anti-Chk2 (73C175.1.1) at 5 ug/ml overnight at 4C and detected with an anti-mouse Dylight 488 (Green) at a 1:500 dilution. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 40X objective.



Immunohistochemistry-Paraffin: Chk2 Antibody (73C175.1.1) TA336399 - Staining of human spleen. Immunohistochemistry of formalin-fixed, paraffin-embedded tissue after heat-induced antigen retrieval. Antibody concentration 10 ug/ml.



Western Blot: Chk2 Antibody (73C175.1.1) TA336399 - analysis of Chk2 in A) human HEK293 and B) mouse NIH3T3 lysate using Chk2 antibody at 2 ug/ml.



Western Blot: Chk2 Antibody (73C175.1.1) TA336399 - Western Blot: Chk2 Antibody (73C175.1.1) - Azide Free [NBP2-27403] - analysis of Chk2 in 293 cell lysate. A protein band of approximate molecular weight of 60-62 kDa is detected with Chk2 antibody at 2 ug/ml. Image using the Azide Free form of this antibody.