

Datasheet for ABIN487312  
**anti-CHEK2 antibody**



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**3** Images

## Overview

|              |                                                                                                              |
|--------------|--------------------------------------------------------------------------------------------------------------|
| Quantity:    | 0.1 mg                                                                                                       |
| Target:      | CHEK2                                                                                                        |
| Reactivity:  | Human                                                                                                        |
| Host:        | Mouse                                                                                                        |
| Clonality:   | Monoclonal                                                                                                   |
| Conjugate:   | This CHEK2 antibody is un-conjugated                                                                         |
| Application: | Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunoprecipitation (IP) |

## Product Details

|                             |                                                                                                                                            |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Immunogen:                  | Full-length Human Chk2 fusion protein. Remarks: Hybridoma was established by fusion of Mouse myeloma cell NS-2 with Balb/cmouse splenocyte |
| Clone:                      | DCS-270                                                                                                                                    |
| Isotype:                    | IgG2a                                                                                                                                      |
| Specificity:                | This antibody reacts with Human Chk2.                                                                                                      |
| Cross-Reactivity (Details): | Species reactivity (tested):Human.                                                                                                         |
| Characteristics:            | Synonyms: CHEK2, CHEK-2, CHK-2, RAD53, Cds1, Serine/threonine-protein kinase Chk2, CHK2checkpoint homolog                                  |
| Purification:               | Protein-A Sepharose Chromatography.                                                                                                        |

## Target Details

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Target:           | CHEK2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Alternative Name: | CHK2 ( <a href="#">CHEK2 Products</a> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Background:       | Checkpoint kinase 2 (Chk2), also known as Cds1, is a 61 kDa nuclear protein that functions as a checkpoint kinase to regulate the cell cycle progression following DNA damage. Chk2 inhibits CDC2 by inactivating CDC25, the phosphatase that normally activates CDC2. Other targets for Chk2 include the tumor suppressors BRCA1 and p53, which it stabilizes by phosphorylation of Ser20. Chk2 is itself phosphorylated and activated by ATM following DNA damage. Defects in Chk2 contribute to the development of human cancers, and implicate Chk2 as a candidate tumor suppressor and an attractive target for drug discovery.Synonyms: CHEK-2, CHEK2, CHK-2, CHK2 checkpoint homolog, Cds1, RAD53, Serine/threonine-protein kinase Chk2 |
| Gene ID:          | 11200                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| UniProt:          | <a href="#">O96017</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Pathways:         | <a href="#">p53 Signaling</a> , <a href="#">Apoptosis</a> , <a href="#">Cell Division Cycle</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

## Application Details

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| Application Notes: | Western Blot: 0.2 µg/mL. Positive Control: HeLa. Immunoprecipitation: 3 µg/200-300 µL of cell extract. Positive Control: HeLa. Immunohistochemistry: 1-5 µg/mLHeat treatment is necessary for Paraffin Embedded Sections. Microwave oven: 2 times for 10 minutes each in citrate buffer (pH 6.5). Positive Control: Tonsil Tissue. Detailed procedure is provided in Protocols.<br><br>Other applications not tested.<br><br>Optimal dilutions are dependent on conditions and should be determined by the user.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Protocol:          | SDS-PAGE & Western Blotting1) Wash the cells 3 times with PBS and suspend with 10 volume of cold Lysis buffer (50 mMTris-HCl, pH 7. 2, 250 mM NaCl, 0. 1% NP-40, 2 mM EDTA, 10% glycerol) containingappropriate protease inhibitors. Incubate it at 4°C with rotating for 30 minutes, thensonicate briefly (up to 10 seconds). 2) Centrifuge the tube at 12,000 x g for 10 minutes at 4°C and transfer the supernatant toanother tube. Measure the protein concentration of the supernatant and add the Lysisbuffer to make 8 mg/mL solution. 3) Mix the sample with equal volume of Laemmli's sample buffer. 4) Boil the samples for 2 minutes and centrifuge. Load 10 µL of the sample per lane in a 1mm thick SDS-polyacrylamide gel for electrophoresis. 5) Blot the protein to a polyvinylidene difluoride (PVDF) membrane at 1 mA/cm2 for 1 hourin a semi-dry transfer system. (Transfer Buffer: 25 mM Tris, 190 mM glycine, 20% MeOH). See the manufacture's manual for the transfer procedure. 6) To reduce nonspecific binding, soak the membrane in 10% skimmed milk (in PBS, pH7. 2) for 1 hour at room temperature, or overnight |

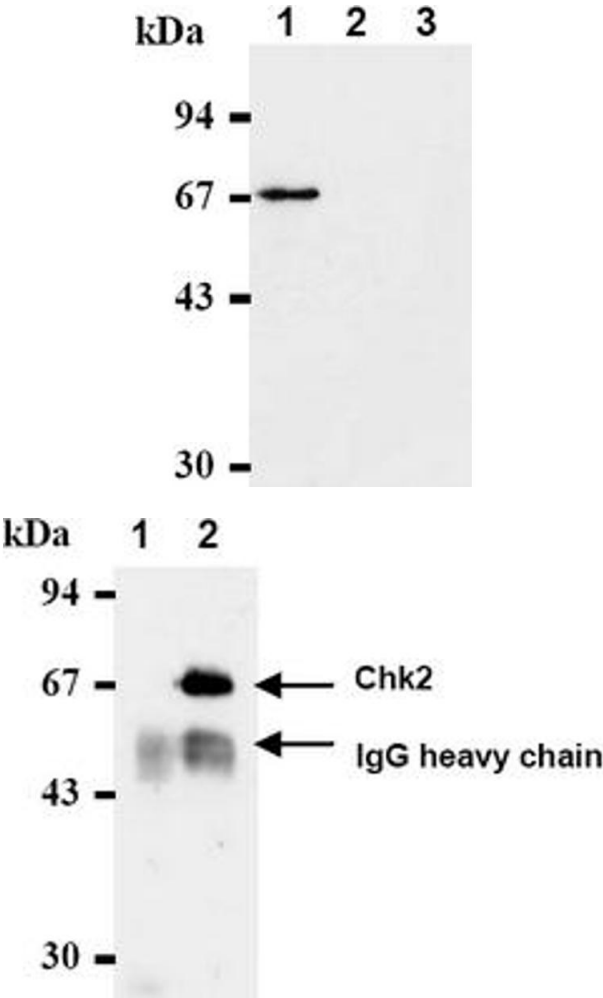
Application Details

at 4°C. 7) Incubate the membrane with the anti-Chk2 (DCS-270) monoclonal antibody (0. 2 µg/mL) diluted with 1% skimmed milk (in PBS, pH 7. 2) for 1 hour at room temperature. 8) Wash the membrane with PBS (5 minutes x 6 times). 9) Incubate the membrane with the 1: 10000 POD-conjugated anti-mouse IgG diluted with 1% skimmed milk (in PBS, pH 7. 2) for 1 hour at room temperature. 10) Wash the membrane with PBS (5 minutes x 6 times). 11) Wipe excess buffer from the membrane, then incubate it with appropriate chemiluminescence reagents for 1 minute. Remove extra reagent from the membrane by dabbing with a paper towel, and seal it in plastic wrap. 12) Expose to an X-ray film in a dark room for 5 minutes. Develop the film as usual. The conditions for exposure and development may vary. Positive Controls for Western blotting: HeLa immunoprecipitation 1) Wash the cells 3 times with PBS and suspend with 10 volume of cold Lysis buffer (50 mM Tris-HCl, pH 7. 2, 250 mM NaCl, 0. 1% NP-40, 2 mM EDTA, 10% glycerol) containing appropriate protease inhibitors. Incubate it at 4°C with rotating for 30 minutes, then sonicate briefly (up to 10 seconds). 2) Centrifuge the tube at 12,000 x g for 10 minutes at 4°C and transfer the supernatant to another tube. 3) Add 3 µg of the anti-Chk2 (DCS-270) monoclonal antibody into 250 µL of the supernatant. Mix well and incubate with gentle agitation for 30-120 minutes at 4°C. Add 20 µL of 50% Protein A-agarose beads resuspended in the

Restrictions: For Research Use only

Handling

|                  |                                                                                                                         |
|------------------|-------------------------------------------------------------------------------------------------------------------------|
| Concentration:   | 1.0 mg/mL                                                                                                               |
| Buffer:          | PBS, pH 7.2 containing 50 % Glycerol without preservatives.                                                             |
| Preservative:    | Without preservative                                                                                                    |
| Storage:         | -20 °C                                                                                                                  |
| Storage Comment: | Store the antibody (in aliquots) at -20 °C. Avoid repeated freezing and thawing.<br>Shelf life: one year from despatch. |
| Expiry Date:     | 12 months                                                                                                               |

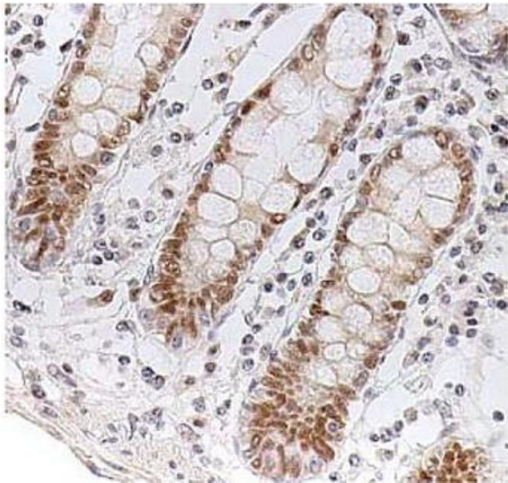


Western Blotting

Image 1.

Western Blotting

Image 2.



Immunohistochemistry

Image 3.