9853 Pacific Heights Blvd.
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12-4080: Phospho-Chk2 (Thr68) (Clone: D12) rabbit mAb

Clonality :	Monoclonal
Clone Name :	Chk2T68-D12
Application :	FACS,WB
Reactivity :	Human, Mouse
Conjugate :	Unconjugated
Format :	Purified
Alternative Name :	Serine/threonine-protein kinase Chk2, Cds1 homolog, Hucds2, CHEK2, RAD53
Isotype :	Rabbit IgG1k
Immunogen Information :	A synthetic phospho-peptide corresponding to residues surrounding Thr68 of human phospho Chk2

Description

Checkpoint kinase 2 (Chk2) plays a major role in the checkpoint response to DNA damage. Chk2 is initially inactive in its monomeric, unphosphorylated form. Phosphorylation at Thr68 induces homodimerization, initiating autophosphorylation within the kinase loop at Ser516 and phorphorylation events within the auto-inhibitory loop at Thr383 and Thr387. After these phosphorylations, active dimers and monomers can then phosphorylate substrates such as Cdc25C and BRCA1. In humans, Chk2 genetic deletion and missense variants have been found to be associated with increased risk of breast and colon cancer. Constitutively phosphorylated Chk2 at Thr68 has been found in many human cancer cell lines, especially ones with mutations in p53.

Product Info

Amount :	20 µl / 200 µl
Content :	1X PBS, 0.02% NaN3, 50% Glycerol, 0.1% BSA
Storage condition :	Store at -20°C. Avoid repeated freeze and thaw cycles.

Application Note

1Ã‚µg/mL - 0.001Ã‚µg/mL. It is recommended that the reagent be titrated for optimal performance for each application. See product image legends for additional information.(0.5mg/ml)

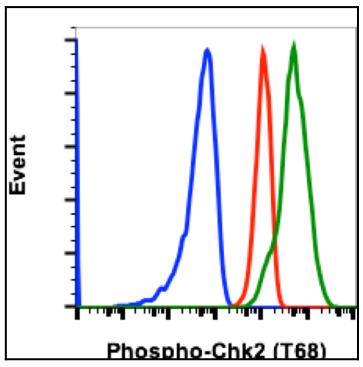

Fig-1: Flow cytometric analysis of Jurkat cells secondary antibody only negative control (blue) or untreated (red) or treated with Calyculin A (green) using Phospho-Chk2 (Thr68) antibody Chk2T68-D12 0.1 µg/mL.

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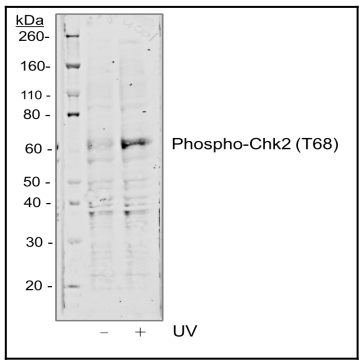

Fig 2 : Western blot analysis of HEK293 cell extract untreated or treated with UV using Phospho Chk2(T68) antibody Chk2T68-D12.

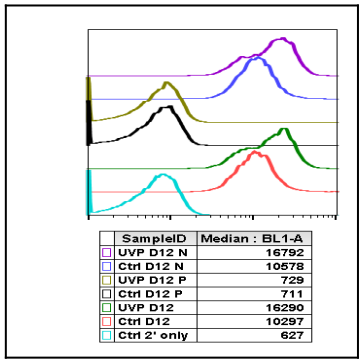

Fig-3: Peptide blocking flow cytometric analysis of HEK293T cells secondary antibody only negative control (light blue) or untreated (red) or UV/TPA-treated (green) or untreated and blocked with phospho-peptide (black) or UV/TPA and blocked with phospho peptide (gold) or untreated and blocked with non-phospho peptide (dark blue) or UV/TPA and blocked with non-phospho peptide (purple) using Phospho-Chk2 (T68) antibody Chk2T68-D12 0.1µg/mL.

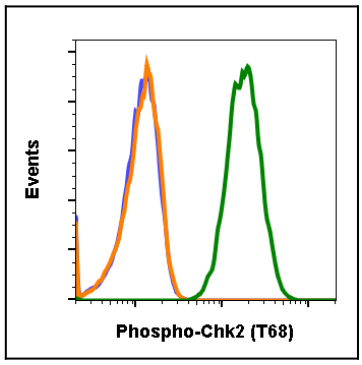

Fig-4: Chk2T68-D12 recognizes basal phosphorylation levels in mouse cells. Flow cytometric analysis of 3T3 cells secondary antibody only (blue) or 0.1 µg/mL of isotype control (orange) or of Phospho-Chk2 (T68) antibody Chk2T68-D12 (green).

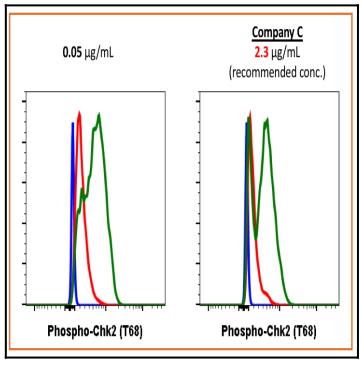

Fig-5: Flow cytometric analysis of C6 cells secondary antibody only negative control (blue) or treated with imatinib (red) or with pervanadate (green) using 0.05 µg/mL Phospho-Chk2 (T68) antibody Chk2T68-D12 or Company C antibody at 2.3 µg/mL (manufacturer's recommended concentration).