Phospho-Chk2 (Thr68) (D12) rabbit mAb

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#2116

Store at: -20ºC

For Research Use Only. Not For Use In Diagnostic Procedures.

Applications	Detection	Clonality	Isotype
Flow Cytometry,WB	Anti-Rabbit IgG	Monoclonal	Rabbit IgGk

Format: Unconjugated

Cross Reactivity: Predicted to work with mouse, rat, and other homologues

Formulation: 1X PBS, 0.02% NaN3, 50% Glycerol, 0.1% BSA

Preparation: Protein A+G

Reactivity: Human,Mouse

Recommended Usage: 1µg/mL ? 0.001µg/mL. It is recommended that the reagent be titrated for optimal performance for each application. See product image legends for additional information.

Immunogen: 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.

References:

Ahn J, Urist M, and Prives C. (2004) DNA Repair. 3: 1039-1047.

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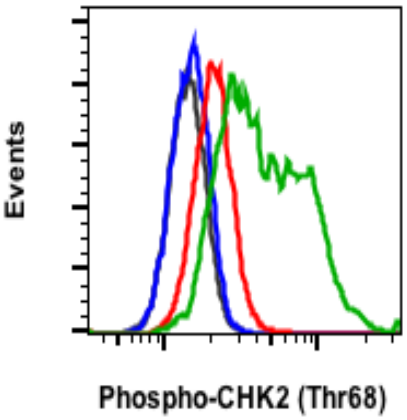
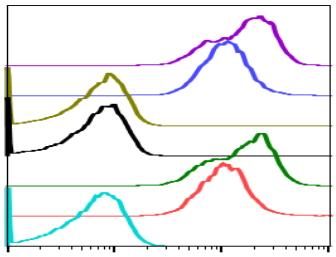
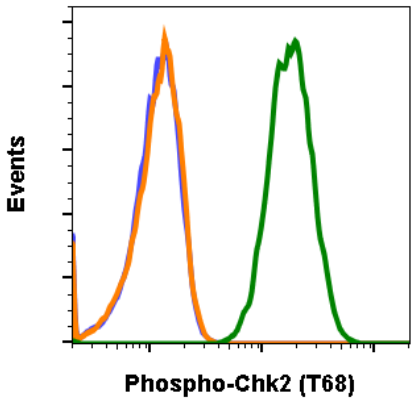


Flow cytometric analysis of Hela cells treated with lambda phosphatase (red) or treated with UV+TPA (green) using Phospho-CHK2 (Thr68) (D12) Rabbit mAb, at 0.01 ug/mL, CHK2T68-D12 #2116, or concentration-matched Rabbit (G9) mAb IgG Isotype Control #2141 for cells treated with lambda phosphatase (black) or treated with UV+TPA (blue).

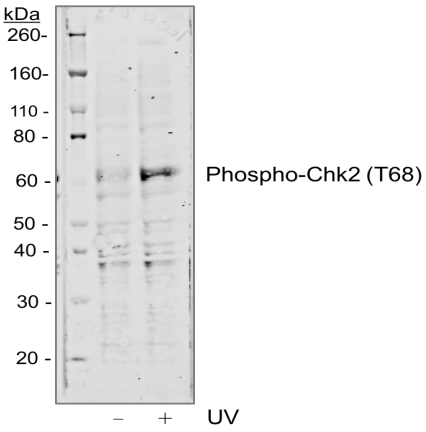


	SampleID	Median : BL1-A
	UVP D12 N	16792
	Ctrl D12 N	10578
	UVP D12 P	729
	Ctrl D12 P	711
	UVP D12	16290
	Ctrl D12	10297
	Ctrl 2' only	627

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. Cat. #2116.



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 Cat. #2141 (orange) or of Phospho-Chk2 (T68) antibody Chk2T68-D12 (green) Cat. #2116.



Western blot analysis of HEK293 cell extract untreated or treated with UV using Phospho Chk2(T68) antibody Chk2T68-D12. Cat. #2116.

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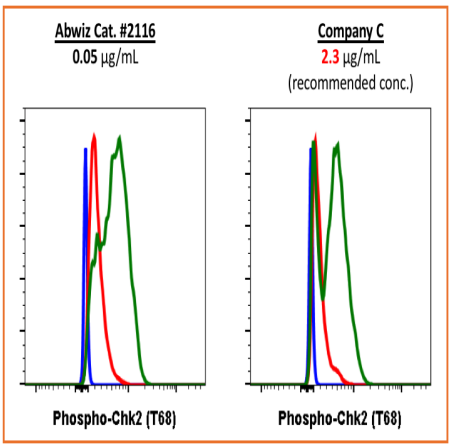

Flow cytometric analysis of C6 cells secondary antibody only negative control (blue) or treated with imatinib (red) or with pervanadate (green) using 0.05 µg/mL Phospho-Chk2 (T68) antibody Chk2T68-D12 (Abwiz Cat. #2116) or Company C antibody at 2.3 µg/mL (manufacturer's recommended concentration).

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