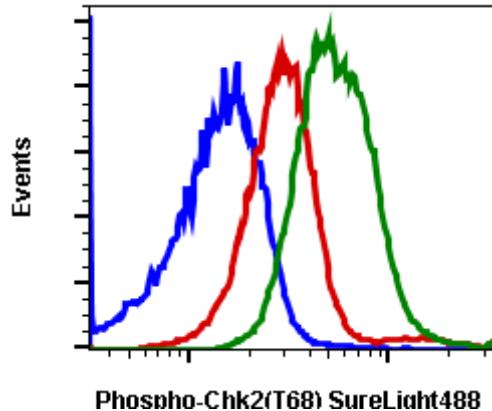


For Research Use Only. Not For Use In Diagnostic Procedures.

| Applications   | Detection | Clonality  | Isotype     |
|----------------|-----------|------------|-------------|
| Flow Cytometry | N/A       | Monoclonal | Rabbit IgGk |

|                           |   |
|---------------------------|---|
| <b>Format:</b>            | SureLight 488   |
| <b>Cross Reactivity:</b>  | Predicted to work with mouse, rat and other homologues.   |
| <b>Formulation:</b>       | 1X PBS, 0.09% NaN <sub>3</sub> , 0.2% BSA   |
| <b>Preparation:</b>       | Protein A+G   |
| <b>Reactivity:</b>        | Human, Mouse  |
| <b>Recommended Usage:</b> | For flow cytometric staining, the suggested use of this reagent is 5 µL per million cells or 5 µL per 100 µL of staining volume. It is recommended that the reagent be titrated for optimal performance for each application.   |
| <b>Immunogen:</b>         | A synthetic phospho-peptide corresponding to residues surrounding Thr68 of human phospho Chk2   |
| <b>Description:</b>       | 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 phosphorylation 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. |
| <b>References:</b>        | Ahn J, Urist M, and Prives C. (2004) DNA Repair. 3: 1039-1047.  |



Flow cytometric analysis of HeLa cells, Unstained and untreated cells as negative control (blue) or stained and untreated (red) or stained and treated with UV plus TPA (green) using Phospho-Chk2 (Thr68) antibody CHK2T68-D12 SureLight 488 conjugate, Cat. #2120.