

## Anti-Cdc25B Antibody Picoband® Fluoro594 Conjugated

Catalog Number: PB9488-Fluoro594

### About CDC25B

Central to the onset of mitosis in all eukaryotic cells is the CDC2 protein kinase, the activity of which is negatively regulated by phosphorylation and positively activated by dephosphorylation. The latter function is carried out by a specific phosphatase, CDC25. At least 3 human CDC25 genes code for the A, B, and C forms of CDC25. CDC25B is mapped to 20p13. P38 kinase has a critical role in the initiation of a G2 delay after ultraviolet radiation. Inhibition of p38 blocks the rapid initiation of this checkpoint in both human and murine cells after ultraviolet radiation. In vitro, p38 binds and phosphorylates CDC25B at serines 309 and 361, and CDC25C at serine-216; phosphorylation of these residues is required for binding to 14-3-3 proteins. In vivo, inhibition of p38 prevents both phosphorylation of CDC25B at serine-309 and 14-3-3 binding after ultraviolet radiation, and mutation of this site is sufficient to inhibit the checkpoint initiation. Regulation of CDC25B phosphorylation by p38 is a critical event for initiating the G2/M checkpoint after ultraviolet radiation.

### Overview

Product Name	Anti-Cdc25B Antibody Picoband® Fluoro594 Conjugated
Reactive Species	Human, Mouse, Rat
Application	Flow Cytometry
Clonality	Polyclonal
Formulation	Each vial contains 50% glycerol, 0.9% NaCl, 0.2% Na <sub>2</sub> HPO <sub>4</sub> , 0.02% NaN <sub>3</sub> .
Storage Instructions	At -20°C for one year from date of receipt. Avoid repeated freezing and thawing. Protect from light.
Host	Rabbit
Uniprot ID	P30305

### Technical Details

Immunogen	E.coli-derived human Cdc25B recombinant protein (Position: M119-L248). Human Cdc25B shares 71% and 68.2% amino acid (aa) sequence identity with mouse and rat Cdc25B, respectively.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Liquid
Concentration	0.5 mg/mL
Purification	Immunogen affinity purified.
Conjugate	Fluoro594 Excitation Wavelength: 593 nm

	Emission Wavelength: 618 nm
Suggested Dilutions	Flow Cytometry, Optimal dilutions should be determined by end users.

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