Human/Mouse/Rat CDC25B Alexa Fluor® 532-conjugated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF1649X
100 µg

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat CDC25B. Four splice variants of CDC25B, with molecular weights of 61, 63, 65, and 67 kDa, are known. The immunogen selected for this antibody is common to all variants. Immunoreactivity consistent with at least 3 variants has
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human CDC25B Glu391-Gln580 Accession # P30305
Conjugate	Alexa Fluor 532 Excitation Wavelength: 534 nm Emission Wavelength: 553 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Cell Division Cycle 25B (Cdc25B) phosphatase removes inorganic phosphate groups covalently attached to tyrosine, serine and threonine residues in proteins (1). Breast cancer patients bearing tumors containing high levels of Cdc25B have been found to have a greater incidence of aggressive, high-grade tumors than those with low Cdc25B levels (2). In cells, the levels of Cdc25B activity are highest during the G2/M transition of the cell cycle, where it is suspected to be involved in “checkpoint” control of cell cycle progression (3). Overexpression of Cdc25B reduces the G2/M cell cycle block caused by ionizing radiation (4). Although activated by phosphorylation, Ser323 phosphorylation causes the enzyme to bind the protein 14-3-3, preventing substrate access to the catalytic site (5). One of the major substrates of Cdc25B is Cdc2, a kinase that is activated by dephosphorylation (6). The recombinant protein is truncated to remove the N-terminal regulatory domains and is fully active.

PRODUCT SPECIFIC NOTICES

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