Phospho-Aurora A (Thr288)/Aurora B (Thr232)/Aurora C (Thr198) (CC12) rabbit mAb

www.abwizbio.com
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#2386

Store at: -20ºC

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

Applications	Detection	Clonality	Isotype
Flow Cytometry	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

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 human Aurora A (Thr288)/Aurora B (Thr232)/Aurora C (Thr198)

Description: Aurora kinases (serine/threonine kinases) are essential requirement for the onset and progression of mitosis. These kinases share a similar protein structure as well as kinase activity, however each kinase display distinct cellular and subcellular localization. Each Aurora member is phosphorylated at specific residues upon co-factor binding during mitosis. Aurora kinases acquire active kinase conformations due to the activation loop. The active kinase conformation is acquired upon auto-phosphorylation through an intermolecular (trans)-reaction within Aurora kinase domain. Aurora Kinase A (Aurora A) is involved in G2/M transition. AuroraA promotes centrosome maturation and mitotic spindle assembly, whereas AuroraB and AuroraC act as chromosome-passenger complex proteins. They play a crucial role in chromosomal binding to kinetochores and segregation of chromosomes. Aurora B is widely distributed in the cell, while AuroraC is expressed mainly in the meiotically-active germ cells. Aurora kinases are auto-phosphorylated into active forms at conserved threonine residues (i.e. the Thr288 (AurA), Thr232 (AurB) and Thr195 (AurC) residues). AuroraA auto-phosphorylation is initiated by several co-factors acting at different steps of mitosis. AroraB and AruroaC auto-phosphorylation are mediated by survivin and Borealin proteins.

References:

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Carmena M, et al., (2009) Curr Opin Cell Biol 21:796?805.
Bolanos-Garcia VM. (2005) Int J Biochem Cell Biol. 37:1572?1577.
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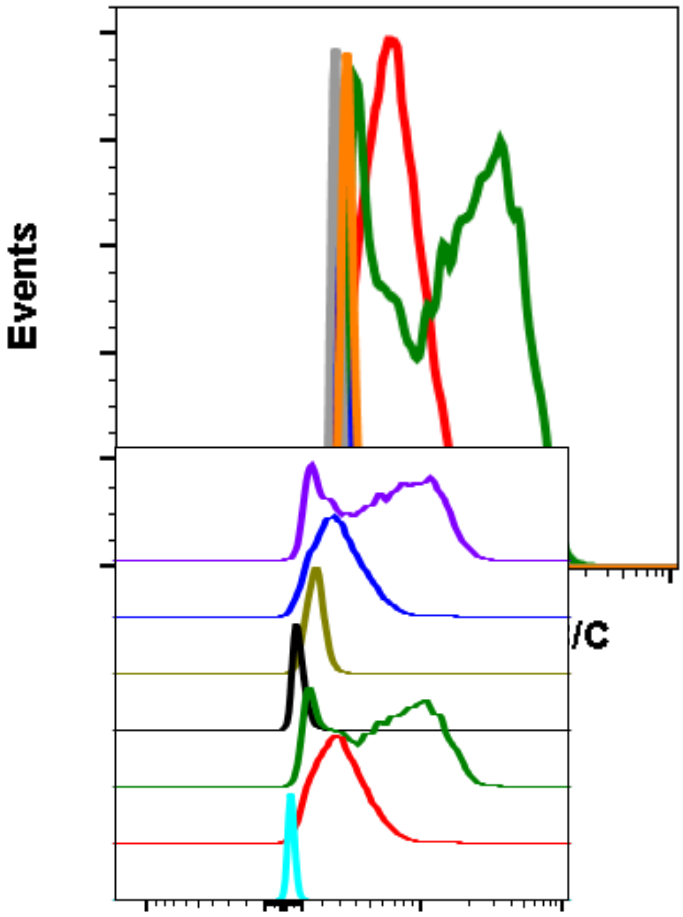
9823 Pacific Heights Blvd., Suite J, San Diego, CA 92121



Flow cytometric analysis of HeLa cells secondary antibody only negative control (blue) or untreated (grey) or treated with nocodazole (orange) using 0.5 µg/mL of isotype control Cat. #2141 or untreated (red) or treated (green) using Phospho-Aurora A (Thr288)/Aurora B (Thr232)/Aurora C (Thr198) antibody AuroraABC-CC12 at 0.5 µg/mL. Cat. #2386.

Peptide blocking flow cytometric analysis of HeLa cells unstained cells negative control (light blue) or untreated (red) or treated with nocodazole (green) or untreated and blocked with phospho-peptide (black) or nocodazole and blocked with phospho peptide (gold) or untreated and blocked with non-phospho peptide (dark blue) or nocodazole and blocked with non-phospho peptide (purple) using Phospho-Aurora A (Thr288)/Aurora B (Thr232)/Aurora C (Thr198) antibody AuroraABC-CC12 at 0.5 µg/mL. Cat. #2386.

	IgG	Treatment	Peptide Block	Median : BL1-A
	CC12	Nocod	Non-phos.	6223
	CC12	Control	Non-phos.	2827
	CC12	Nocod	Phospho	1637
	CC12	Control	Phospho	717
	CC12	Nocod	-	6294
	CC12	Control	-	2948
	2' only	Control	-	355

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