


Product datasheet

PE Anti-GSK3 beta antibody [Y174] ab210619

Recombinant **RabMAb**

3 Images

Overview

| | |
|----------------------------|---|
| Product name | PE Anti-GSK3 beta antibody [Y174] |
| Description | PE Rabbit monoclonal [Y174] to GSK3 beta |
| Host species | Rabbit |
| Conjugation | PE. Ex: 488nm, Em: 575nm |
| Specificity | This antibody may also detect the splice isoform 2 based on sequence homology. |
| Tested applications | Suitable for: ICC/IF, Flow Cyt (Intra) |
| Species reactivity | Reacts with: Human Predicted to work with: Mouse  |
| Immunogen | Synthetic peptide. This information is proprietary to Abcam and/or its suppliers. |
| Positive control | Flow Cyt (intra)ometry: MCF7 cells ICC/IF: MCF7 cells |
| General notes | Our RabMAb [®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents . |

Properties

| | |
|-----------------------------|---|
| Form | Liquid |
| Storage instructions | Shipped at 4°C. Upon delivery aliquot. Store at +4°C. Do Not Freeze. Store In the Dark. |
| Storage buffer | pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 1% BSA |
| Purity | Protein A purified |
| Clonality | Monoclonal |
| Clone number | Y174 |
| Isotype | IgG |

Applications

The **Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab210619 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

| Application | Abreviews | Notes |
|------------------|-----------|---|
| ICC/IF | | 1/1000. This product gave a positive signal in MCF7 cells fixed with 100% methanol (5 min) |
| Flow Cyt (Intra) | | 1/5000. |

Target

Function

Participates in the Wnt signaling pathway. Implicated in the hormonal control of several regulatory proteins including glycogen synthase, MYB and the transcription factor JUN. Phosphorylates JUN at sites proximal to its DNA-binding domain, thereby reducing its affinity for DNA. Phosphorylates MUC1 in breast cancer cells, and decreases the interaction of MUC1 with CTNNB1/beta-catenin. Phosphorylates CTNNB1/beta-catenin. Phosphorylates SNAI1. Plays an important role in ERBB2-dependent stabilization of microtubules at the cell cortex. Prevents the phosphorylation of APC and CLASP2, allowing its association with the cell membrane. In turn, membrane-bound APC allows the localization of MACF1 to the cell membrane, which is required for microtubule capture and stabilization. Phosphorylates MACF1 and this phosphorylation inhibits the binding of MACF1 to microtubules which is critical for its role in bulge stem cell migration and skin wound repair.

Tissue specificity

Expressed in testis, thymus, prostate and ovary and weakly expressed in lung, brain and kidney.

Sequence similarities

Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. GSK-3 subfamily. Contains 1 protein kinase domain.

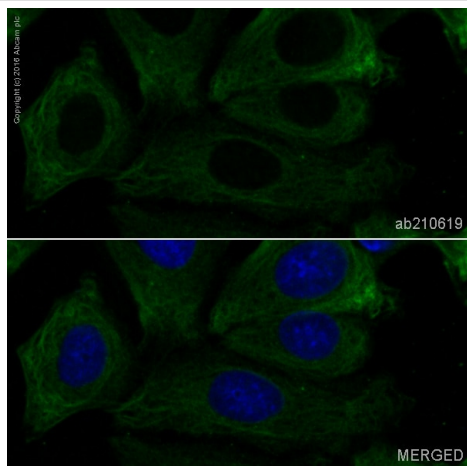
Post-translational modifications

Phosphorylated by AKT1 and ILK1. Activated by phosphorylation at Tyr-216.

Cellular localization

Cytoplasm. Nucleus. Cell membrane. The phosphorylated form shows localization to cytoplasm and cell membrane. The MEMO1-RHOA-DIAPH1 signaling pathway controls localization of the phosphorylated form to the cell membrane.

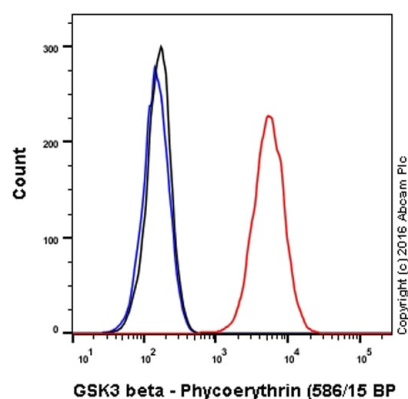
Images



Immunocytochemistry/ Immunofluorescence - PE
Anti-GSK3 beta antibody [Y174] (ab210619)

ab210619 staining GSK3 beta in MCF7 cells. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab210619 at 1/1000 dilution (**pseudocolored in green**). Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



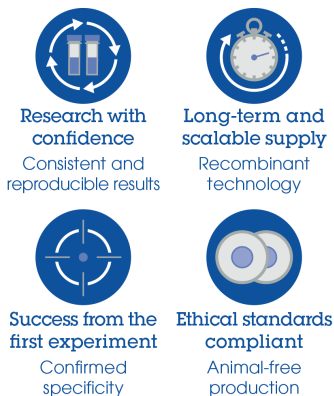
Flow Cytometry (Intracellular) - PE Anti-GSK3 beta antibody [Y174] (ab210619)

Overlay histogram showing MCF7 cells stained with ab210619 (red line). The cells were fixed with 4% formaldehyde and then permeabilized with 90% methanol at -20°C for 15 min. The cells were then incubated in 1x PBS / 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (ab210619, 1/5000 dilution) for 30 min at 22°C.

Isotype control antibody (black line) was rabbit IgG (monoclonal) Phycoerythrin (**ab209478**) used at the same concentration and conditions as the primary antibody. Unlabelled sample (blue line) was also used as a control.

Acquisition of >5,000 events were collected using a 50mW Yellow/Green laser (561nm) and 586/15 bandpass filter.

Why choose a recombinant antibody?



PE Anti-GSK3 beta antibody [Y174] (ab210619)

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