Datasheet for ABIN711468

# anti-Pkc beta 1 antibody (pSer642) (FITC)

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## Overview

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| Quantity: | 100 µL |
| Target: | Pkc beta 1 |
| Binding Specificity: | pSer642 |
| Reactivity: | Rat, Human, Mouse |
| Host: | Rabbit |
| Clonality: | Polyclonal |
| Conjugate: | This Pkc beta 1 antibody is conjugated to FITC |
| Application: | Western Blotting (WB), Flow Cytometry (FACS), Immunofluorescence (Paraffin-embedded Sections) (IF (p)), Immunofluorescence (Cultured Cells) (IF (cc)) |

## Product Details

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| Immunogen: | KLH conjugated synthetic phosphopeptide derived from human PKC beta 1 around the phosphorylation site of Ser642 |
| Isotype: | IgG |
| Cross-Reactivity: | Human, Mouse, Rat |
| Purification: | Purified by Protein A. |

## Target Details

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| Target: | Pkc beta 1 |
| Alternative Name: | PKC beta 1 (Pkc beta 1 Products) |

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## Target Details

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| Background: | Synonyms: Protein kinase C beta type, PKC-B, PKC-beta, PRKCB, PKCB, PRKCB1<br>Background: Calcium-activated, phospholipid- and diacylglycerol (DAG)-dependent serine/threonine-protein kinase involved in various cellular processes such as regulation of the B-cell receptor (BCR) signalosome, oxidative stress-induced apoptosis, androgen receptor-dependent transcription regulation, insulin signaling and endothelial cells proliferation. Plays a key role in B-cell activation by regulating BCR-induced NF-kappa-B activation. Mediates the activation of the canonical NF-kappa-B pathway (NFKB1) by direct phosphorylation of CARD11/CARMA1 at 'Ser-559', 'Ser-644' and 'Ser-652'. Phosphorylation induces CARD11/CARMA1 association with lipid rafts and recruitment of the BCL10-MALT1 complex as well as MAP3K7/TAK1, which then activates IKK complex, resulting in nuclear translocation and activation of NFKB1. Plays a direct role in the negative feedback regulation of the BCR signaling, by down-modulating BTK function via direct phosphorylation of BTK at 'Ser-180', which results in the alteration of BTK plasma membrane localization and in turn inhibition of BTK activity. Involved in apoptosis following oxidative damage: in case of oxidative conditions, specifically phosphorylates 'Ser-36' of isoform p66Shc of SHC1, leading to mitochondrial accumulation of p66Shc, where p66Shc acts as a reactive oxygen species producer. Acts as a coactivator of androgen receptor (ANDR)-dependent transcription, by being recruited to ANDR target genes and specifically mediating phosphorylation of 'Thr-6' of histone H3 (H3T6ph), a specific tag for epigenetic transcriptional activation that prevents demethylation of histone H3 'Lys-4' (H3K4me) by LSD1/KDM1A. In insulin signaling, may function downstream of IRS1 in muscle cells and mediate insulin-dependent DNA synthesis through the RAF1-MAPK/ERK signaling cascade. May participate in the regulation of glucose transport in adipocytes by negatively modulating the insulin-stimulated translocation of the glucose transporter SLC2A4/GLUT4. |
| Gene ID: | 5579 |

## Application Details

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| Application Notes: | FCM 1:20-100<br>IF(IHC-P) 1:50-200<br>IF(IHC-F) 1:50-200<br>IF(ICC) 1:50-200 |
| Restrictions: | For Research Use only |

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## Handling

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| Format: | Liquid |
| Concentration: | 1 µg/µL |
| Buffer: | Aqueous buffered solution containing 0.01M TBS ( pH 7.4) with 1 % BSA, 0.03 % Proclin300 and 50 % Glycerol. |
| Preservative: | ProClin |
| Precaution of Use: | This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only. |
| Storage: | -20 °C |
| Storage Comment: | Store at -20°C. Aliquot into multiple vials to avoid repeated freeze-thaw cycles. |
| Expiry Date: | 12 months |

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