PKCβ (Phospho-Thr641) Antibody

#11172

Catalog Number: 11172-1, 11172-2

Amount: 50μg/50μl, 100μg/100μl

Swiss-Prot No. :P05771

Form of Antibody: Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl,0.02% sodium azide and 50% glycerol.

Storage/Stability: Store at -20℃/1 year

Immunogen: The antiserum was produced against synthesized phosphopeptide derived from human PKCβ around the phosphorylation site of threonine 641 (E-L-T$_P$-P-T).

Purification: The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific phosphopeptide. The antibody against non-phosphopeptide was removed by chromatogramphy using non-phosphopeptide corresponding to the phosphorylation site.

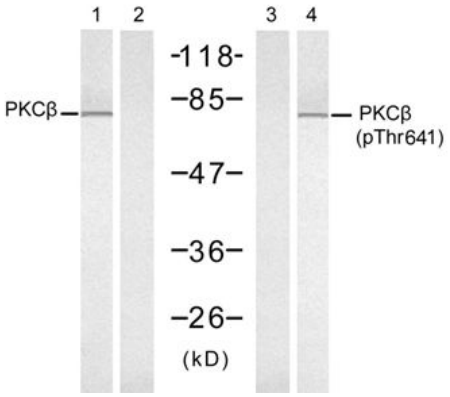
Specificity/Sensitivity:PKCβ (phospho-Thr641) antibody detects endogenous levels of PKCβ only when phosphorylated at threonine 641.

Reactivity: Human,Mouse,Rat

Applications:

Predicted MW: 82 kd

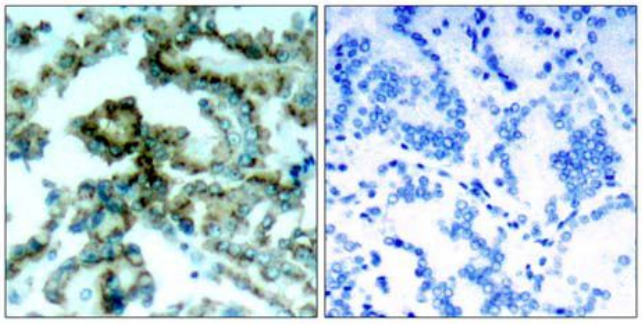
WB: 1:500~1:1000 IHC 1:50~1:200 IF:1:100~1:200



PMA − − − +

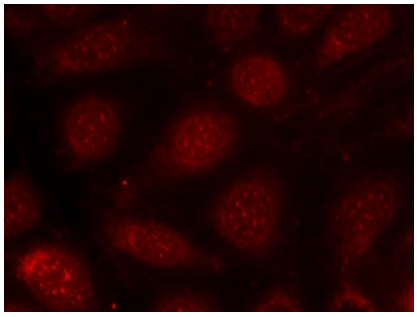
Peptide − + − −

Western blot analysis of extracts from K562 cells, untreated or treated with PMA (1ng/ml, 10min), using PKCβ (Ab-641) antibody (#21184, Line 1 and 2) and PKCβ (Phospho-Thr641) antibody (#11172, Line 3 and 4).



P-Peptide − +

Immunohistochemical analysis of paraffin-embeddedhuman breast carcinoma tissue, using PKCβ(Phospho- Thr641) antibody (#11172).



Immunofluorescence staining of methanol-fixed MCF7 cells using PKCβ (phospho-Thr641) antibody(#11172, Red).

Background :

Calcium-activated and phospholipid-dependent serine/threonine-protein kinase involved in various processes such as regulation of the B-cell receptor (BCR) signalosome, apoptosis and transcription regulation. Plays a key role in B-cell activation and function by regulating BCR-induced NF-kappa-B activation and B-cell suvival. Required for recruitment and activation of the IKK kinase to lipid rafts and mediates phosphorylation of CARD11/CARMA1 at 'Ser-559', 'Ser-644' and 'Ser-652', leading to activate the NF-kappa-B signaling. 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. Also involved in triglyceride homeostasis. Serves as the receptor for phorbol esters, a class of tumor promoters.

References：

Zhang Y, et al. (2006) Mol Cell Biol ; 26: 6748-6761

Castoria G, et al. (2004) Mol Cell Biol ; 24: 7643-7653

Marcil J, et al. (1999) Biochem J ; 337:185-192

Bornancin F, et al. (1996) Curr Biol ; 6:1114-1123.