



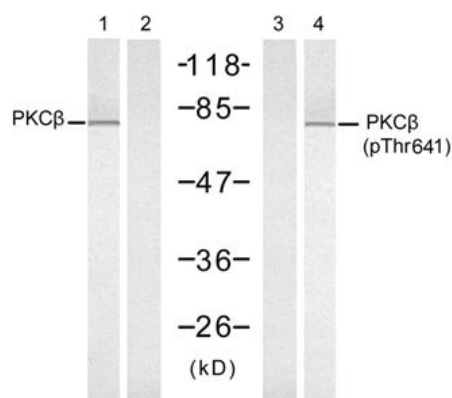
## PKC $\beta$ (Ab-641) Antibody

#21184

**Catalog Number:** 21184-1, 21184-2**Amount:** 50 $\mu$ g/50 $\mu$ l, 100 $\mu$ g/100 $\mu$ l**Swiss-Prot No. :** P05771**Form of Antibody:** Rabbit IgG in phosphate buffered saline (without Mg<sup>2+</sup> and Ca<sup>2+</sup>), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.**Storage/Stability:** Store at -20°C/1 year**Immunogen:** The antiserum was produced against synthesized non-phosphopeptide derived from human PKC $\beta$  around the phosphorylation site of threonine 641 (E-L-T<sub>P</sub>-P-T).**Purification:** The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen**Specificity/Sensitivity:** PKC $\beta$  (Ab-641) antibody detects endogenous levels of total PKC $\beta$  protein.**Reactivity:** Human, Mouse, Rat**Applications:**

Predicted MW: 82 kd

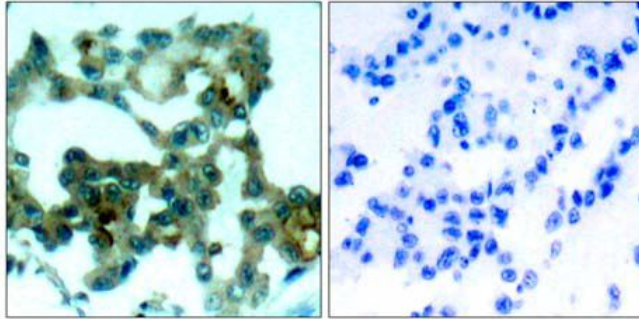
WB: 1:500~1:1000 IHC 1:50~1:200 IF: 1:100~1:200



PMA       -   -   -   +

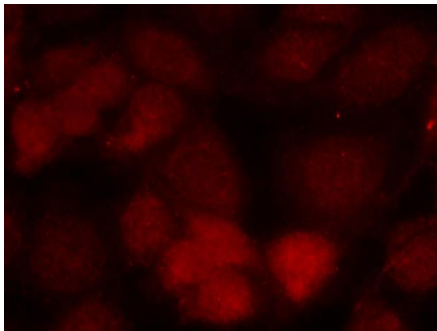
Peptide   -   +   -   -

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



Peptide - +

Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue, using PKC $\beta$  (Ab-641) antibody (#21184).



Immunofluorescence staining of methanol-fixed HeLa cells using PKC $\beta$  (Ab-641) antibody (#21184, 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 survival. 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.