

Polyclonal Antibody to PKC-theta (pSer345/348)

Catalog No.: SP6378P

Quantity: 50 µg

Concentration: 0.2 mg/ml

Background: Protein kinase C (PKC) is a family of serine/threonine kinases that plays crucial roles in signal transduction. Members of the PKC family are divided into three groups based on their molecular structures and activating mechanisms: 1) Conventional PKC (α, β, and γ) requiring calcium, phosphatidylserine (PS), and diacylglycerol (DG) for activation; 2) novel PKC (δ, ε, η, and θ isoforms) activated independent of calcium; and 3) atypical PKC (ξ and λ/ι), which are independent of both calcium and DG. nPKC theta consists of 707 amino acid residues and shows the highest sequence similarity to nPKC delta. nPKC theta has a zincfinger- like cysteine-rich sequence (C1 region) and a protein kinase domain sequence (C3 region), both of which are common in all PKC family members. However, nPKC theta lacks a putative Ca²⁺ binding region (C2 region) that is seen only in conventional PKC subfamily. Analysis of mRNA from various human tissues revealed high-level expression of PKC-theta was found in skeletal muscle, lung, T cells, and brain, and minimal expression in cardiac muscle, placenta, and liver.

Host: Rabbit

Immunogen: Synthetic peptide

AA Sequence:

corresponding to human PKC-theta surrounding the phosphorylated residue of Ser345/348.

Format: **State:** liquid

Purification: epitope affinity purified

Buffer System: Supplied in 1X PBS (pH 7.4) containing 0.05 % Sodium Azide.

Applications: ELISA: 0.1-1.0 µg/ml.

Western Blot: 0.5 to 2 µg/ml.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: This antibody reacts specifically to PKC-theta (pSer345/348). The antibody was evaluated by western blots and ELISA titration assays. With ELISA using synthetically prepared PKC-theta (pSer345/348) peptides, it only recognize PKC-theta (pSer345/348) and not other kinases or nonphosphorylated PKC-theta (pSer345/348). By the western blot analysis, an immunoreactive band detected at approximately 79 kDa was observed in the whole cell lysates derived from Hela and HEK293.

Species: Human.

Other species not tested.

Storage: Store at 2-8 °C for up to 1 year.

For research and in vitro use only. Not for diagnostic or therapeutic work.
Material Safety Datasheets are available at www.acris-antibodies.com or on request.

Antibody Hotline - Technical Questions - Antibody Location Service
Free Call: 0800-2274746 (Germany only) - www.acris-antibodies.com

- General Readings:**
1. Niino, Y. et al. J. Biol. Chem., Vol. 276 39, 36711 (2001).
 2. Choi, M. et al. J. Biol. Chem., 278 26, 23610 (2003).
 3. Puceat. et al. J. Biol. Chem. 269 24, 16938 (1994).
 4. Osada, S. et al. Mol. Cell. Biol., 3930 12, 9 (1992).
 5. Chang, JD. et al. J. Biol. Chem., 268 19, 14208 (1993).

Pictures: Western blot analysis: PMA stimulated Hek 293 whole cell lysate probed with rabbit anti- PKC-theta at 1:500, a major band was detected at approximately 79 kDa. This band was abolished upon addition of the blockin

