

**DESCRIPTION**

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human PKC $\epsilon$ in direct ELISAs. In direct ELISAs, less than 20% cross-reactivity with recombinant human (rh) PKC $\delta$ and rhPKC $\iota$ is observed. No cross-reactivity with rhPKC $\alpha$ , $\beta$ 1, $\beta$ 2, $\gamma$ , $\eta$ , $\mu$ , $\nu$ , $\theta$ , or $\zeta$ is observed.
<b>Source</b>	Monoclonal Mouse IgG <sub>2B</sub> Clone # 666823
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human PKC $\epsilon$ Gln580-Pro737 Accession # Q02156
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 $\mu$ m filtered solution in PBS.

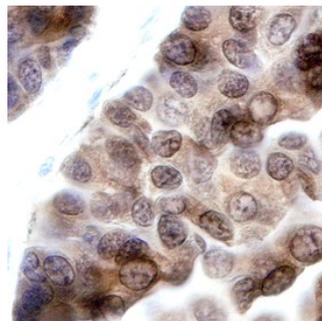
**APPLICATIONS**

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Immunohistochemistry</b>	8-25 $\mu$ g/mL	See Below

**DATA**

**Immunohistochemistry**



**PKC $\epsilon$  in Human Lung Cancer Tissue.**  
PKC $\epsilon$  was detected in immersion fixed paraffin-embedded sections of human lung cancer tissue using Mouse Anti-Human PKC $\epsilon$  Monoclonal Antibody (Catalog # MAB5134) at 15  $\mu$ g/mL overnight at 4 °C. Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm and nuclei of cancer cells. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.5 mg/mL.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**BACKGROUND**

PKC $\epsilon$  (protein kinase C-epsilon) is an 87 kDa member of the novel PKC subfamily, AGC Ser/Thr protein kinase family of enzymes. It is a widely-expressed Ca<sup>++</sup>-insensitive, phospholipid-dependent enzyme that catalyzes the phosphorylation of multiple proteins. Human PKC $\epsilon$  is 737 amino acids (aa) in length. It contains two general regions: a non-Ca<sup>++</sup>-binding plus lipid binding regulatory region (aa 1-99 and 169-292, respectively), and an ATP-binding catalytic domain (aa 408-668). Phosphorylation of PKC $\epsilon$  on Thr566, Ser368 and Ser729 activates the enzyme and increases its molecular weight to 92 kDa. One potential splice form shows a 114 aa substitution for aa 118-737. Over aa 580-737, human PKC $\epsilon$  is 98% and 99% aa identical to mouse and canine PKC $\epsilon$ , respectively.