

**DESCRIPTION**

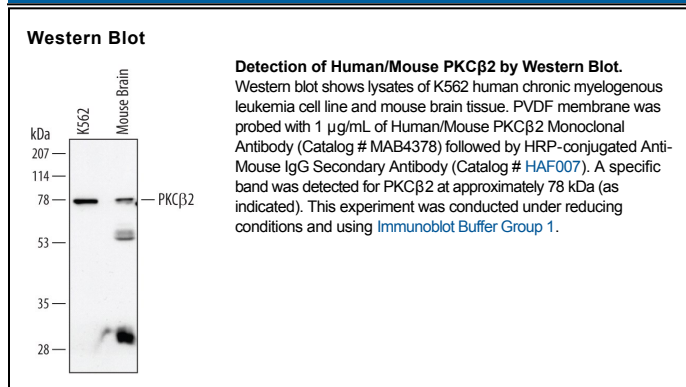
<b>Species Reactivity</b>	Human/Mouse
<b>Specificity</b>	Detects endogenous human and mouse PKC $\beta$ 2 in Western blots.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 469832
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human PKC $\beta$ 2 Lys607-Ser673 Accession # P05771-2
<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>Western Blot</b>	1 $\mu$ g/mL	See Below

**DATA**



**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<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**

Members of the Protein Kinase C (PKC) family are serine/threonine protein kinases that play a key regulatory role in a number of cellular functions including cell growth and differentiation, hormone secretion, and gene expression. Multiple genes and alternative splicing result in three subfamilies, which differ in their co-factor requirements: conventional PKC isoforms ( $\alpha$ ,  $\beta$ I,  $\beta$ II, and  $\gamma$ ) which require calcium and phosphatidyserine (PS), diacylglycerol (DAG) or phorbol esters for activation; novel isoforms ( $\delta$ ,  $\epsilon$ ,  $\eta$ , and  $\theta$ ), which are calcium-independent but are still regulated by PS, DAG, or phorbol esters; and atypical isoforms ( $\iota$ ,  $\lambda$ , and  $\zeta$ ), which are calcium-independent and do not require PS, DAG, or phorbol esters for activation. PKC  $\beta$ 2 regulation of c-myc expression has been shown to suppress insulin gene transcription in pancreatic  $\beta$ -cells implicating PKC  $\beta$ 2 for some of the  $\beta$ -cell glucose toxicity found in diabetes.