

## Product datasheet for **AM20219PU-N**

### PKC theta (PRKCQ) (C-term) (incl. pos. control) Mouse Monoclonal Antibody [Clone ID: 1C2]

#### Product data:

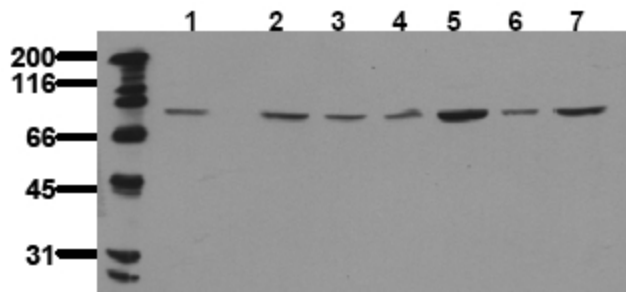
Product Type:	Primary Antibodies
Clone Name:	1C2
Applications:	WB
Recommended Dilution:	<b>Immunoblotting:</b> 0.5 µg/ml for HRPO/ECL detection. <i>Recommended blocking buffer:</i> Casein/Tween 20 based blocking and blot incubation buffer AS00002BU-N or AS00002BU-L. <i>Included Positive Control:</i> Cell lysate from untreated MCF-7 cells (See Protocols for more details).
Reactivity:	Human, Rat
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Peptide conjugated to hemocyanin derived from the C-terminal domain of PKC theta.
Specificity:	This monoclonal antibody 1C2 recognizes Protein kinase C theta (PKC theta).
Formulation:	1 ml PBS with 0.09% Sodium Azide/PEG and Sucrose. State: Purified State: Lyophilized purified IgG fraction.
Reconstitution Method:	Restore with 1 ml H <sub>2</sub> O (15 min, RT).
Purification:	Subsequent Ultrafiltration and Size Exclusion Chromatography.
Conjugation:	Unconjugated
Storage:	Store lyophilized (preferably in a desiccator) at -20°C and reconstituted (aliquote and freeze in liquid nitrogen) at -80°C. Avoid repeated freezing and thawing. Thaw aliquots at 37°C. Thawed aliquots may be stored at 4°C up to 3 months.
Stability:	Shelf life: one year from despatch.
Gene Name:	protein kinase C theta
Database Link:	<a href="#">Entrez Gene 85420 Rat</a> <a href="#">Entrez Gene 5588 Human</a> <a href="#">Q04759</a>



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<b>Background:</b>	<p>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:</p> <ol style="list-style-type: none"><li>1) Conventional PKC (alpha, beta, and gamma) requiring calcium, phosphatidylserine (PS), and diacylglycerol (DG) for activation</li><li>2) novel PKC (sigma, epsilon, eta, and theta) activated independent of calcium and</li><li>3) Atypical PKC (zeta and lamda), which are independent of both calcium and DG. 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.</li></ol> <p>The protein kinase C family of Ser/Thr kinases consists of 11 isoenzymes. PKC theta is a autophosphorylated protein kinase, a member of the novel PKC (nPKC) subfamily. PKC theta is expressed in most tissues.</p>
<b>Synonyms:</b>	PKC theta, PKC-theta, nPKC-theta, Protein kinase C theta type
<b>Note:</b>	<p><b>Mol. weight:</b> 79 kD</p> <p>Protocol: <b>Positive Control Provided.</b> <b>Cell lysate from untreated MCF-7 cells</b></p> <p><b>Description:</b> Cell lysate from untreated MCF-7 cells, breast adenocarcinoma (Human)</p> <p><b>Format:</b> Lyophilized cell lysate from serum starved MCF-7 cells.</p> <p><b>Reconstitution:</b> Restore by addition of 200 µl H<sub>2</sub>O. After complete solubilization add 200 µl 2x SDS-PAGE sample buffer, mix and incubate at 90°C for 5 min.</p> <p><b>Storage:</b> Aliquote and store frozen. Avoid repeated freeze/thaw cycles.</p> <p><b>Application:</b> The positive control cell lysate is recommended for immunoblot applications. 20 µl of positive control cell lysate correspond to ca. 80.000 cells. Use 20 µl / lane (mini gel) for HRPO/ECL detection of the target proteins.</p> <p><b>Please note:</b> The lyophilized cell lysates contain SDS and are not recommended for applications with native proteins such as immunoprecipitation.</p>
<b>Protein Families:</b>	Druggable Genome, Protein Kinase, Transcription Factors
<b>Protein Pathways:</b>	Adipocytokine signaling pathway, T cell receptor signaling pathway, Tight junction, Vascular smooth muscle contraction

## Product images:



Detection of endogenous PKC theta: Whole cell lysates of serum starved tumor cells (20,000 cells per lane) were applied to SDS-PAGE and transferred to PVDF membranes. Immunoblots were probed with PKCtheta antibody (Clone 1C2) at 0.5 ug/ml for 1h at RT and developed by ECL (exp. time: 30 sec). Lane 1: A431 Lane 2:SW480 Lane 3: SW620 Lane 4: HT29 Lane 5: MCF-7 Lane 6: MDA-MB-231 Lane 7: T47D