Phospho-PLCγ2 (Tyr759) Antibody

**Applications**

- **Western blotting**
- **ImmunoPrecipitation**
- **Chromatin Immunoprecipitation**
- **Immunohistochemistry**
- **Immunofluorescence**
- **Flow cytometry**
- **ELISA-Peptide**
- **Immunoprecipitation**

**Species Cross-Reactivity**

- **H**—human
- **M**—mouse
- **R**—rat
- **S**—sheep
- **X**—Xenopus
- **B**—bovine

**Molecular Wt.** 150 kDa

**Source** Rabbit

**Storage:** Supplied in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

**Recommended Antibody Dilutions:** Western blotting 1:1000

**Entrez-Gene ID** # 5336
**Swiss-Prot Acc.** # P16885

**Background:** Phosphoinositide-specific phospholipase C (PLC) plays a significant role in transmembrane signaling. In response to extracellular stimuli such as hormones, growth factors and neurotransmitters, PLC hydrolyzes phosphatidylinositol 4,5-bisphosphate (PIP2) to generate two secondary messengers: inositol 1,4,5-trisphosphate (IP3) and diacylglycerol (DAG) (1). At least four families of PLCs have been identified: PLCα, PLCβ, PLCδ and PLCε. The PLCβ subfamily includes four members, PLCβ1-4. All four members of the subfamily are activated by α- or βγ-subunits of the heterotrimeric G-proteins (2,3). Phosphorylation is one of the key mechanisms that regulates the activity of PLC. Phosphorylation of Ser1105 by PKA or PKC inhibits PLCα3 activity (4,5). Ser537 of PLCγ1 is phosphorylated by CaMKII, and this phosphorylation may contribute to the basal activity of PLCγ3. PLCγ2 is activated by both receptor and non-receptor tyrosine kinases (6). PLCγ forms a complex with EGF and PDGF receptors, which leads to the phosphorylation of PLCγ1 at Tyr771, 783 and 1248 (7). Phosphorylation by Syk at Tyr783 activates the enzymatic activity of PLCγ1 (8).

**Specificity/Sensitivity:** Phospho-PLCγ2 (Tyr759) Antibody detects endogenous levels of PLCγ2 only when phosphorylated at tyrosine 759. The antibody does not cross-react with phosphorylated PLCδ1.

**Source/Purification:** Polyclonal antibodies are produced by immunizing animals with a synthetic phospho-peptide (KLH-coupled) corresponding to residues surrounding Tyr759 of human PLCγ2. Antibodies are purified by protein A and peptide affinity chromatography.

**Background References:**


**For Application Specific Protocols Please See the Web Page for This Product at www.cellsignal.com.**