

**PLD2 (E1Y9G) Rabbit mAb**

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<b>Applications:</b> W	<b>Reactivity:</b> H	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 95	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #O14939	<b>Entrez-Gene Id:</b> 5338
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**Product Usage Information****Application**

Western Blotting

**Dilution**

1:1000

**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

**Specificity/Sensitivity**

PLD2 (E1Y9G) Rabbit mAb recognizes endogenous levels of total PLD2 protein.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala880 of human PLD2 protein.

**Background**

Phosphatidylcholine-specific phospholipase D (PLD) hydrolyzes phosphatidylcholine (PC) to produce choline and phosphatidic acid (PA). PA is the precursor of the second messenger, diacylglycerol (DAG). Two isoforms of PLD (PLD1 and PLD2) have been identified so far. Both are regulated by protein kinases, small GTPases and Ca<sup>2+</sup> (1). The PLD2 isoform is highly expressed in many cancers, such as colorectal and breast cancers (2,3). PLD2 also acts as a guanine nucleotide exchange factor for the small GTPase Rac2 independent of its phospholipase activity (4).

**Background References**

1. Exton, J.H. (1999) *Biochim Biophys Acta* 1439, 121-33.
2. Oshimoto, H. et al. (2003) *Oncol Res* 14, 31-7.
3. Henkels, K.M. et al. (2013) *Oncogene* 32, 5551-62.
4. Mahankali, M. et al. (2011) *Proc Natl Acad Sci U S A* 108, 19617-22.

**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

**Applications Key**

**W:** Western Blotting

**Cross-Reactivity Key**

**H:** Human

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