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# PLD4 Polyclonal Antibody

Catalog # AP74335

## Product Information

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|---|---|
| **Application** | WB, IHC-P |
| **Primary Accession** | Q96BZ4 |
| **Reactivity** | Human, Mouse, Rat |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 55626 |

## Additional Information

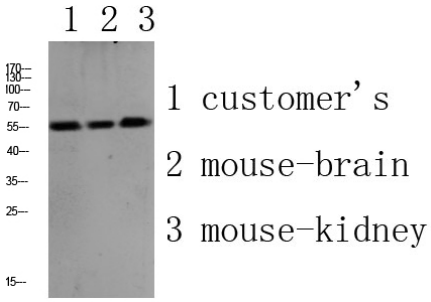
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|---|---|
| **Gene ID** | 122618 |
| **Other Names** | Phospholipase D4 (PLD 4) (EC 3.1.4.4) (Choline phosphatase 4) (Phosphatidylcholine-hydrolyzing phospholipase D4) |
| **Dilution** | WB~~WB 1:500-2000, ELISA 1:10000-20000 IHC-P~~N/A |
| **Format** | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide. |
| **Storage Conditions** | -20℃ |

## Protein Information

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| **Name** | PLD4 {ECO:0000303\|PubMed:30111894, ECO:0000312\|HGNC:HGNC:23792} |
| **Function** | Lysosomal 5'->3' exonuclease that functions in nucleic-acid sensing by immune cells. Hydrolyzes phosphodiester bond in single- stranded RNA and DNA molecules, with a higher efficiency for molecules with 5' uridine and guanosine residues. It can stall at certain sites and does not necessarily proceed to complete exonucleolytic degradation, thereby producing nucleoside 3'-monophosphates but also 5'-end 5'-hydroxy deoxyribonucleotide/ribonucleotide fragments (PubMed:30111894, PubMed:34620855, PubMed:38537643, PubMed:38697119, PubMed:40931063). Through the processing of self and exogenous RNA and DNA molecules, provides molecular signals to toll-like receptors (TLRs) in innate immunity. Partially redundant with PLD3, it cooperates with the RNase T2/RNASET2 to generate 2',3'-cGMP and cytidine-rich RNA fragments that occupy the two TLR7 ligand-binding pockets, to trigger receptor activation and signaling (PubMed:38697119). Can exert polynucleotide phosphatase activity toward 5'-phosphorylated single- stranded DNA substrates although at a slow rate (PubMed:38537643). Could play a role in phagocytosis of activated microglia (By similarity). |

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| **Cellular Location** | Lysosome. Endoplasmic reticulum membrane {ECO:0000250\|UniProtKB:Q8BG07}; Single- pass type II membrane protein {ECO:0000250\|UniProtKB:Q8BG07}. Golgi apparatus, trans-Golgi network membrane {ECO:0000250\|UniProtKB:Q8BG07}; Single-pass type II membrane protein {ECO:0000250\|UniProtKB:Q8BG07} Nucleus {ECO:0000250\|UniProtKB:Q8BG07}. Early endosome {ECO:0000250\|UniProtKB:Q8BG07}. Cytoplasmic vesicle, phagosome {ECO:0000250\|UniProtKB:Q8BG07}. Note=Activation of microglia induces translocation of PLD4 from the nucleus to the phagosomes {ECO:0000250\|UniProtKB:Q8BG07} |
| **Tissue Location** | Expressed in plasmacytoid dendritic cells and monocytes (at protein level). |

## Images




Western blot analysis of various lysate, antibody was diluted at 1000. Secondary antibody was diluted at 1:20000

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.