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# phospho-PEA15 (Ser104) Rabbit pAb

Catalog # AP99460

## Product Information

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| **Application** | IHC-P, IHC-F, IF, E |
| **Primary Accession** | Q15121 |
| **Other Accession** | Q15121 |
| **Predicted** | Rat, Human, Mouse, Rabbit, Dog |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 15040 |
| **Physical State** | Liquid |
| **Immunogen** | KLH conjugated Synthesised phosphopeptide derived from human PEA15 around the phosphorylation site of Ser104 |
| **Epitope Specificity** | IP(p-S)AK |
| **Isotype** | IgG |
| **Purity** | affinity purified by Protein A |
| **Buffer** | 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. |
| **SIMILARITY** | Contains 1 DED (death effector) domain. |
| **SUBUNIT** | Binds RPS6KA3, MAPK3 and MAPK1. Transient interaction with PLD1 and PLD2 (By similarity). Interacts with CASP8 and FADD. |
| **Post-translational modifications** | Phosphorylated by protein kinase C and calcium-calmodulin-dependent protein kinase. These phosphorylation events are modulated by neurotransmitters or hormones. |
| **Important Note** | This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. |
| **Background Descriptions** | PED/PEA 15 (Phosphoprotein Enriched in Diabetes/Phosphoprotein Enriched in Astrocytes 15 kDa) is a widely expressed 15 kDa protein comprised of an N terminal region containing a canonical Death Effector Domain (DED) sequence and a nuclear export signal, and a C terminal region containing two serine phosphorylation sites. PED/PEA 15 has been implicated in the regulation of multiple cellular processes including apoptosis, integrin activation, and insulin sensitive glucose transport in insulin responsive cells. Phosphorylation of both serine 104 (a Protein Kinase C site) and serine 116 (a substrate of CaMKII and Akt) is required for PED/PEA 15 function. |

## Additional Information

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| **Gene ID** | 8682 |
| **Other Names** | HMAT1; HUMMAT1H; MAT1; MAT1H; PEA-15; PED; PED-PEA15; PED/PEA15; Pea15; Pkcs15; PEA15_HUMAN; 15 kDa phosphoprotein enriched in astrocytes; Phosphoprotein enriched in diabetes (PED); PEA15_MOUSE; Pea15a; proliferation and apoptosis adaptor protein 15; phosphoprotein enriched in astrocytes 15; proliferation and apoptosis adaptor 15; Phosphoprotein enriched in astrocytes, 15kD; homolog of mouse MAT-1 oncogene; Phosphoprotein enriched in diabetes; PEA15 (phospho-S104); |

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| | p-PEA15; phospho-PEA15; PEA15 (phospho-Ser104) |
| **Dilution** | IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000 |
| **Storage** | Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C. |

## Protein Information

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| **Name** | PEA15 |
| **Function** | Blocks Ras-mediated inhibition of integrin activation and modulates the ERK MAP kinase cascade. Inhibits RPS6KA3 activities by retaining it in the cytoplasm (By similarity). Inhibits both TNFRSF6- and TNFRSF1A-mediated CASP8 activity and apoptosis. Regulates glucose transport by controlling both the content of SLC2A1 glucose transporters on the plasma membrane and the insulin-dependent trafficking of SLC2A4 from the cell interior to the surface. |
| **Cellular Location** | Cytoplasm. Note=Associated with microtubules. |
| **Tissue Location** | Ubiquitously expressed. Most abundant in tissues such as heart, brain, muscle and adipose tissue which utilize glucose as an energy source. Lower expression in glucose-producing tissues Higher levels of expression are found in tissues from individuals with type 2 diabetes than in controls. |

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