# PEA15 Protein, Human

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| **Cat. No.:** | HY-P71195 |
| **Synonyms:** | Astrocytic Phosphoprotein PEA-15; 15 kDa Phosphoprotein Enriched in Astrocytes; Phosphoprotein Enriched in Diabetes; PED; PEA15 |
| **Species:** | Human |
| **Source:** | E. coli |
| **Accession:** | Q15121 ( M1-A130) |
| **Gene ID:** | 8682 |
| **Molecular Weight:** | 12-16 kDa |

## PROPERTIES

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| **AA Sequence** | M A E Y G T L L Q D L T N N I T L E D L E Q L K S A C K E D I P S E K S E E I T<br>T G S A W F S F L E S H N K L D K D N L S Y I E H I F E I S R R P D L L T M V V<br>D Y R T R V L K I S E E D E L D T K L T R I P S A K K Y K D I I R Q P S E E E I<br>I K L A P P P K K A |
| **Appearance** | Lyophilized powder. |
| **Formulation** | Lyophilized from a 0.2 μm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.4. |
| **Endotoxin Level** | <1 EU/μg, determined by LAL method. |
| **Reconsititution** | It is not recommended to reconstitute to a concentration less than 100 μg/mL in dd$H_2O$. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose). |
| **Storage & Stability** | Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage. |
| **Shipping** | Room temperature in continental US;may vary elsewhere. |

## DESCRIPTION

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| **Background** | The PEA15 protein exerts diverse regulatory functions in cellular processes, including blocking Ras-mediated inhibition of integrin activation and modulating the ERK MAP kinase cascade. PEA15 plays a pivotal role in inhibiting the activities of RPS6KA3 by sequestering it in the cytoplasm, thereby regulating key cellular pathways. Additionally, PEA15 serves as a potent inhibitor of both TNFRSF6- and TNFRSF1A-mediated CASP8 activity and apoptosis. Its involvement extends to the regulation of glucose transport, wherein PEA15 controls the content of SLC2A1 glucose transporters on the plasma membrane and modulates the insulin-dependent trafficking of SLC2A4 from the cell interior to the surface. Functionally, PEA15 forms transient interactions with PLD1 and PLD2, further contributing to its intricate regulatory network. Notably, PEA15 engages in direct interactions with key cellular players such as RPS6KA3, MAPK3, MAPK1, CASP8, and FADD, |

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| | underscoring its multifaceted role in cellular signaling and homeostasis. |



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