

Rabbit (polyclonal) Anti-PED/PEA-15 [pS¹¹⁶] Phosphospecific Antibody, Unconjugated

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Catalog Number: 44836G

Store at 2 to 8°C (short-term), or -20°C (long-term)

Clonality: Polyclonal
Quantity: 10 mini-blot size
Volume: 100 µL

Host/Class: Rabbit
Reactivity: Human and mouse
Predicted Reactivity: Rat

Product Description

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. Consistent with this latter function, expression of PED/PEA-15 is increased 2-3-fold in skeletal muscle and adipose cells of patients with Type II diabetes. PED/PEA-15 function is mediated through binding to multiple proteins, including ERK1&2, RSK2, Akt, FADD, and Caspase-8, which, in part, modulates their subcellular localization and access to potential substrates. A major function of PED/PEA-15 may be, therefore, to coordinate inputs from multiple pathways to achieve a unified cellular response. 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.

Product Specifications

Immunogen: The antiserum was produced against a chemically synthesized phosphopeptide derived from a region of human PED/PEA-15 that contains serine 116. The sequence is conserved in mouse and rat.

Lot: See product label

Product Applications

Application	Species	Concentration
Western Blotting	Human and mouse	1:1000

Positive Controls Used

Cos7 cells transfected with PED/PEA-15 cDNA and stimulated with 100 ng/mL PMA; SK-BR-3 cells; PEA recombinant protein activated with camKII

Storage and Handling

Store at -20°C. We recommend a brief centrifugation before opening to settle vial contents. Then, apportion into working aliquots and store at -20°C. For shipment or short-term storage (up to one week), 2 to 8°C is sufficient.

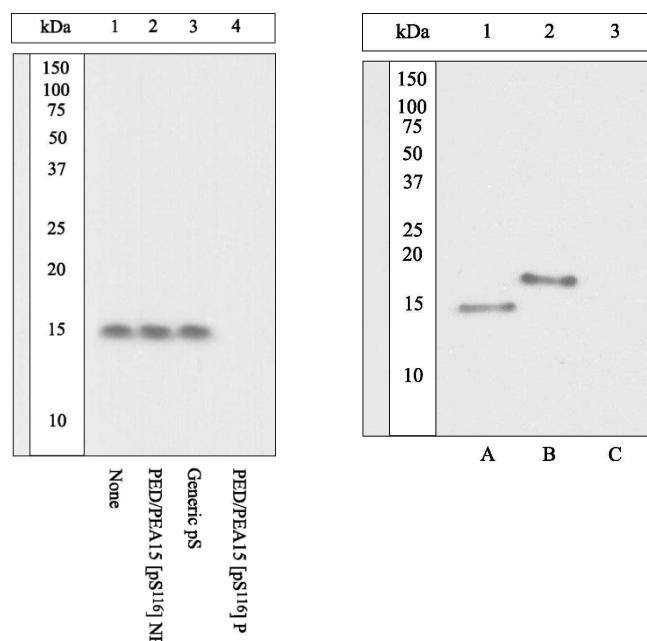


Figure 1 Peptide Competition (left panel)

Lysates prepared from SK-BR-3 cells were resolved by SDS-PAGE on an 18% polyacrylamide gel and transferred to PVDF. Membranes were blocked with a 5% BSA-TBST buffer for one hour at room temperature and incubated with PED/PEA-15 [pS¹¹⁶] antibody for one hour at room temperature in 3% BSA-TBST buffer, following prior incubation with: no peptide (lane 1), the non-phosphopeptide corresponding to the immunogen (lane 2), a generic phosphoserine-containing peptide (lane 3), or, the phosphopeptide immunogen (lane 4). After washing, membranes were incubated with goat F(ab')₂ anti-rabbit IgG HRP conjugate in 3% BSA-TBST buffer, and bands were detected using the Pierce SuperSignal® method.

Mutant experiments (right panel)

Lysates were prepared from PMA-stimulated Cos7 cells transfected with HA-tagged wild-type PED/PEA-15 (lane A), His-tagged S104A mutant PED/PEA-15 (lane B), and His-tagged S116A mutant PED/PEA-15 (lane C). Proteins were resolved by SDS-PAGE, transferred to PVDF, and blotted with PED/PEA-15 [pS¹¹⁶] antibody as above.

For research use only. Not for use in diagnostic procedures.

Stability

When stored as instructed, expires one year from date of receipt unless otherwise indicated on product label.

Storage Buffer

Dulbecco's phosphate buffered saline (without Mg^{2+} and Ca^{2+}), pH 7.3 (± 0.1), 50% glycerol with 1.0 mg/mL BSA (IgG, protease free) as a carrier. Contains 0.05% sodium azide.

Caution: Sodium azide is an extremely toxic and dangerous compound particularly when combined with acids or metals. Properly dispose of solutions containing sodium azide.








Safety Data Sheets (SDS)

Safety Data Sheets (SDSs) are available at www.lifetechnologies.com/support.

Certificate of Analysis

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Explanation of symbols

Symbol	Description	Symbol	Description	Symbol	Description
	Manufacturer		Catalog number		Batch code
	Use by		Temperature limitation		
	Consult instructions for use		Caution, consult accompanying documents		

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