

**AKT3 Western Blot Kit**  
**AKT3 Western Chemiluminescent Blotting Kit**  
**Catalog # ASR5945**

**Specification**

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**AKT3 Western Blot Kit - Product Information**

Host	<b>Mouse</b>
Conjugate	<b>Unconjugated</b>
Target Species	<b>Human</b>
Reactivity	<b>Human</b>
Clonality	<b>Monoclonal</b>
Application	<b>WB, I, LCI</b>
Application Note	<b>Use Rockland Immunochemicals' Anti-AKT3 Chemiluminescent Kit for Western Blotting for detection of human AKT3 native and recombinant proteins by western blot. Expect a band approximately 56 kDa in size corresponding to AKT3 protein. This kit is useful for both western blotting and dot blotting methods. Please read the entire product insert prior to use.</b>
Preservative	<b>Wash buffers MUST NOT contain SODIUM AZIDE or other inhibitors of peroxidase activity!</b>

**AKT3 Western Blot Kit - Additional Information**

**Gene ID** 10000

**Other Names**  
10000

**Purity**

The kit is designed to detect both unphosphorylated and phosphorylated forms of the protein. Cross reactivity with AKT3 from other species has not been determined, however, the sequence of the immunogen shows 100% identity to human, mouse, and rat, therefore, cross reactivity is expected. Cross-reactivity with AKT1 and AKT2 has not been determined. This kit contains sufficient substrate for up to 5 mini blots at 7.5 x 8 cm<sup>2</sup> (1,800 cm<sup>2</sup>) and is stable for at least 1 year when stored as indicated.

**Storage Condition**

See kit insert for complete instructions.

**Precautions Note**

This product is for research use only and is not intended for therapeutic or diagnostic applications.

**AKT3 Western Blot Kit - Protein Information**

**Name** AKT3

**Synonyms** PKBG

**Function**

AKT3 is one of 3 closely related serine/threonine-protein kinases (AKT1, AKT2 and AKT3) called the AKT kinase, and which regulate many processes including metabolism, proliferation, cell survival, growth and angiogenesis. This is mediated through serine and/or threonine phosphorylation of a range of downstream substrates. Over 100 substrate candidates have been reported so far, but for most of them, no isoform specificity has been reported. AKT3 is the least studied AKT isoform. It plays an important role in brain development and is crucial for the viability of malignant glioma cells. AKT3 isoform may also be the key molecule in up-regulation and down-regulation of MMP13 via IL13. Required for the coordination of mitochondrial biogenesis with growth factor-induced increases in cellular energy demands. Down- regulation by RNA interference reduces the expression of the phosphorylated form of BAD, resulting in the induction of caspase- dependent apoptosis.

**Cellular Location**

Nucleus. Cytoplasm. Membrane; Peripheral membrane protein Note=Membrane-associated after cell stimulation leading to its translocation

**Tissue Location**

In adult tissues, it is highly expressed in brain, lung and kidney, but weakly in heart, testis and liver. In fetal tissues, it is highly expressed in heart, liver and brain and not at all in kidney

**AKT3 Western Blot Kit - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**AKT3 Western Blot Kit - Images**

**AKT3 Western Blot Kit - Background**

Rockland Immunochemicals' Chemiluminescent Western Blot Kit for AKT3 combines all of the necessary reagents with a rapid proven protocol and the extremely high signal detection of our luminol chemiluminescent substrate for the detection of native and/or recombinant human AKT3 protein. AKT3 Western Blotting kit allows for the detection of endogenous protein levels of human AKT3 present in cell lysates provided by the user. As a positive control, this kit includes a MDA-MB468 whole cell lysate proven to contain AKT3. After protein separation by SDS-PAGE and transfer, the membrane is probed with Rockland's optimized Anti-AKT3 antibody. Detection of the membrane bound antibody-antigen complex is achieved by the addition of a secondary antibody conjugated to the enzyme horseradish peroxidase. The enzyme reacts with a specialized formulation of luminol, an extremely sensitive, non-radioactive substrate that emits light and allows visualization using X-ray film or other imaging methods, including highly sensitive CCD cameras and imaging systems. AKT3 Western Blotting is ideal for investigators involved in Cell Signaling, Cancer, Neuroscience and Signal Transduction research.