





## Product datasheet

# Anti-AKT1 + AKT2 + AKT3 (phospho Y312 + Y315 + Y316) antibody ab131443

[52 References](#) [3 Images](#)

### Overview

<b>Product name</b>	Anti-AKT1 + AKT2 + AKT3 (phospho Y312 + Y315 + Y316) antibody
<b>Description</b>	Rabbit polyclonal to AKT1 + AKT2 + AKT3 (phospho Y312 + Y315 + Y316)
<b>Host species</b>	Rabbit
<b>Specificity</b>	ab131443 detects endogenous levels of AKT1/2/3 only when phosphorylated at tyrosine 315/316/312.
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P, ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Synthetic peptide corresponding to Human AKT1 + AKT2 + AKT3 conjugated to keyhole limpet haemocyanin. <a href="#"> Run BLAST with </a> <a href="#"> Run BLAST with </a>
<b>Positive control</b>	HepG2 cell extract treated with EGF; HeLa cells; Human breast carcinoma tissue
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
<b>Storage buffer</b>	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: 49% PBS, 50% Glycerol (glycerin, glycerine), 0.88% Sodium chloride  PBS without Mg <sup>2+</sup> and Ca <sup>2+</sup>
<b>Purity</b>	Immunogen affinity purified

<b>Purification notes</b>	ab131443 was purified by affinity-chromatography using epitope-specific phosphopeptide. Non-phospho specific antibodies were removed by chromatography using non-phosphopeptide.
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

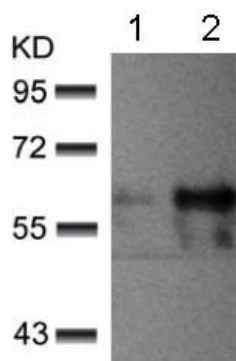
**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab131443 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
<b>WB</b>		1/500 - 1/1000. Predicted molecular weight: 56 kDa.
<b>IHC-P</b>		1/50 - 1/100.
<b>ICC/IF</b>		1/100 - 1/200.

## Target

<b>Function</b>	IGF-1 leads to the activation of AKT3, which may play a role in regulating cell survival. Capable of phosphorylating several known proteins. Truncated isoform 2/PKB gamma 1 without the second serine phosphorylation site could still be stimulated but to a lesser extent.
<b>Tissue specificity</b>	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.
<b>Sequence similarities</b>	Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. RAC subfamily. Contains 1 AGC-kinase C-terminal domain. Contains 1 PH domain. Contains 1 protein kinase domain.
<b>Domain</b>	Binding of the PH domain to the phosphatidylinositol 3-kinase alpha (PI(3)K) results in its targeting to the plasma membrane.
<b>Post-translational modifications</b>	Phosphorylation on Thr-305 and Ser-472 is required for full activity (By similarity). Phosphorylated upon DNA damage, probably by ATM or ATR. Ubiquitinated. When fully phosphorylated and translocated into the nucleus, undergoes 'Lys-48'-polyubiquitination catalyzed by TTC3, leading to its degradation by the proteasome.
<b>Cellular localization</b>	Cytoplasm. Membrane. Membrane-associated after cell stimulation leading to its translocation.

## Images



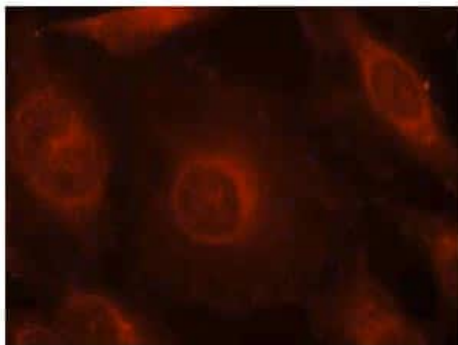
Western blot - Anti-AKT1 + AKT2 + AKT3 (phospho Y312 + Y315 + Y316) antibody (ab131443)

**All lanes :** Anti-AKT1 + AKT2 + AKT3 (phospho Y312 + Y315 + Y316) antibody (ab131443) at 1/500 dilution

**Lane 1 :** HepG2 cell extract untreated

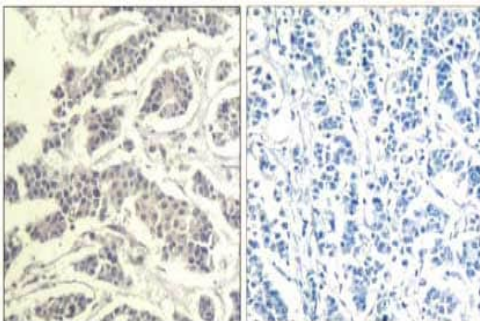
**Lane 2 :** HepG2 cell extract treated with EGF

**Predicted band size:** 56 kDa



Immunocytochemistry/ Immunofluorescence - Anti-AKT1 + AKT2 + AKT3 (phospho Y312 + Y315 + Y316) antibody (ab131443)

Immunofluorescent analysis of methanol-fixed HeLa cells labelling AKT1 + AKT2 + AKT3 (phospho Y315 + Y316 + Y312) with ab131443 at 1/100 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-AKT1 + AKT2 + AKT3 (phospho Y312 + Y315 + Y316) antibody (ab131443)

Immunohistochemical analysis of paraffin-embedded Human breast carcinoma tissue labelling AKT1 + AKT2 + AKT3 (phospho Y315 + Y316 + Y312) with ab131443 at 1/50 dilution. Right panel was preincubated with blocking peptide.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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