

# Product Datasheet

## AKT1 [p Ser473] Antibody - BSA Free NB600-590

Unit Size: 0.1 mg

Store at -20C short term. Aliquot and store at -80C long term. Avoid freeze-thaw cycles.

[www.novusbio.com](http://www.novusbio.com)



[technical@novusbio.com](mailto:technical@novusbio.com)

### Publications: 3

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:  
[www.novusbio.com/NB600-590](http://www.novusbio.com/NB600-590)

Updated 2/21/2025 v.20.1

Earn rewards for product  
reviews and publications.

Submit a publication at [www.novusbio.com/publications](http://www.novusbio.com/publications)

Submit a review at [www.novusbio.com/reviews/destination/NB600-590](http://www.novusbio.com/reviews/destination/NB600-590)



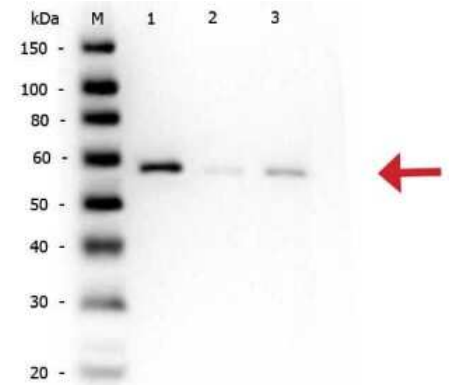
**NB600-590**

AKT1 [p Ser473] Antibody - BSA Free

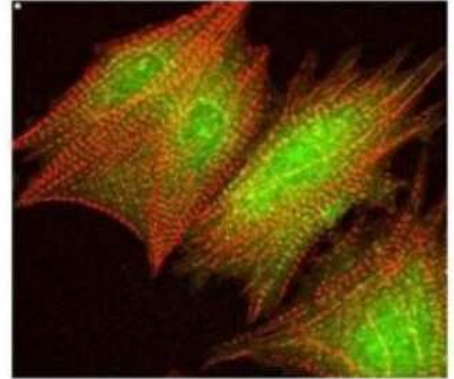
Product Information	
<b>Unit Size</b>	0.1 mg
<b>Concentration</b>	Please see the vial label for concentration. If unlisted please contact technical services.
<b>Storage</b>	Store at -20C short term. Aliquot and store at -80C long term. Avoid freeze-thaw cycles.
<b>Clonality</b>	Polyclonal
<b>Preservative</b>	0.01% Sodium Azide
<b>Isotype</b>	IgG
<b>Purity</b>	Immunogen affinity purified
<b>Buffer</b>	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Product Description	
<b>Description</b>	<p>This product was prepared from monospecific antiserum by immunoaffinity chromatography using a phospho peptide coupled to agarose beads followed by solid phase adsorption(s) against a non-phospho peptide and non-specific peptide to remove any unwanted reactivities. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Rabbit Serum</p> <p>Store vial at -20C prior to opening. Aliquot contents and freeze at -20C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4C as an undiluted liquid. Dilute only prior to immediate use.</p>
<b>Host</b>	Rabbit
<b>Gene ID</b>	207
<b>Gene Symbol</b>	AKT1
<b>Species</b>	Human, Mouse, Rat
<b>Reactivity Notes</b>	This antibody is specific for phosphorylated human AKT1 pS473. Minimal reactivity occurs against non-phosphorylated AKT. Reactivity against AKT1 from other species may occur but has not yet been tested.
<b>Specificity/Sensitivity</b>	This antibody is specific for phosphorylated human AKTpS473. Minimal reactivity occurs against non-phosphorylated AKT. Reactivity against AKT from other species may occur but has not yet been tested.
<b>Immunogen</b>	AKT1 [p Ser473] Antibody was prepared by repeated immunizations in rabbits with a synthetic peptide corresponding to a C-terminus region near phospho Serine 473 of the human, mouse, rat and chicken AKT1 proteins conjugated to KLH. (Uniprot: P31749)
Product Application Details	
<b>Applications</b>	Western Blot, Dot Blot, ELISA, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin
<b>Recommended Dilutions</b>	Western Blot 1:200-1:1000, ELISA 1:15000-1:60000, Immunohistochemistry 1:100-1:500, Immunocytochemistry/ Immunofluorescence 1:40, Immunohistochemistry-Paraffin 1:10-1:500, Dot Blot
<b>Application Notes</b>	This This product is phospho specific for pS473 and is tested in ELISA, western blotting, immunohistochemistry (formalin-fixed paraffin-embedded sections), and immunofluorescence. By immunoblot a single band of the expected apparent molecular weight ~56kDa is observed. For immunohistochemistry no pre-treatment of sample is required.

## Images

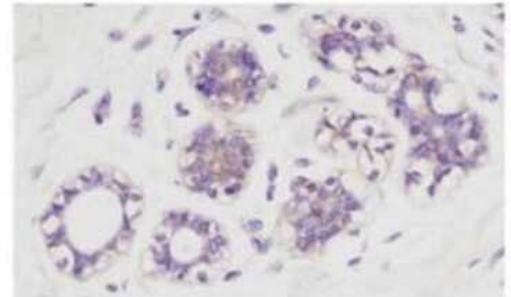
**Western Blot: AKT1 [p Ser473] Antibody [NB600-590]** - Western Blot of AKT11 [p Ser473] antibody. Lane 1: AKT11 Recombinant Protein. Lane 2: AKT11 Mutant Human Recombinant Protein. Lane 3: AKT11 (phosphatase treated) Human Recombinant Protein. Load: 50 ng per lane. Primary antibody: AKT1 pS473 antibody at 1:1,000 for overnight at 4C. Secondary antibody: Peroxidase rabbit secondary antibody at 1:40,000 for 30 min at RT. Block: Blocking Buffer for Fluorescent Western Blotting for 30 min at RT. Predicted/Observed size: ~56 kDa for AKT1pS473.



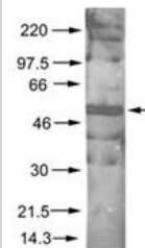
**Immunocytochemistry/Immunofluorescence: AKT1 [p Ser473] Antibody [NB600-590]** - Cardiomyocytes infected with adenovirus expressing wild-type AKT. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: AKT pS473 antibody at 1:40 for 1 h at RT. Secondary antibody: texas-red conjugated rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: AKT pS473 is nuclear. Staining: AKT pS473 as green fluorescent signal with texas-red conjugated phalloidin (red) to label filamentous actin.



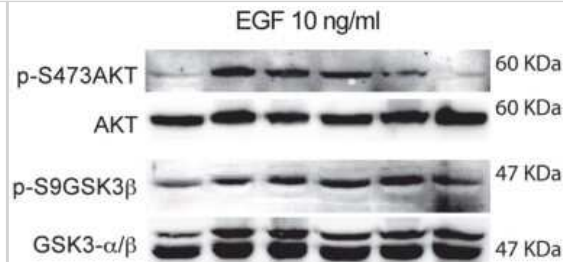
**Immunohistochemistry: AKT1 [p Ser473] Antibody [NB600-590]** - Immunohistochemistry of AKT11 [p Ser473] antibody. Tissue: human breast carcinoma. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: AKT1 pS473 antibody at 1:100 for 1 h at RT. Secondary antibody: Dako's Techmate streptavidin-biotin reagents at 1:10,000 for 45 min at RT. Localization: AKT1 pS473 is nuclear and occasionally cytoplasmic.



**Western Blot: AKT1 [p Ser473] Antibody [NB600-590]** - Lane 1: nuclear extract from cells infected with adenovirus expressing nuclear-targeted AKT kinase. Load: 35 ug per lane. Primary antibody: AKT pS473 antibody at 1:200 dilution for overnight at 4C. Secondary antibody: IRDye800 rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4C. Predicted/Observed size: 56 kDa for AKT pS473. Other band(s): unspecific.



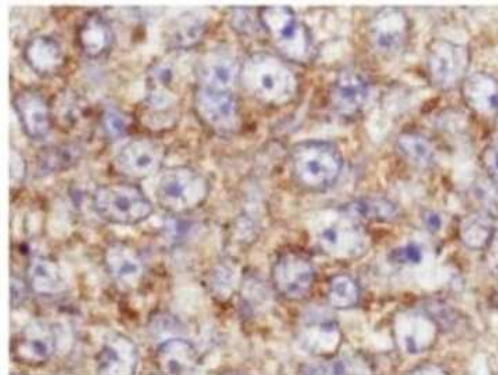
Western Blot: AKT1 [p Ser473] Antibody [NB600-590] - The PI3K activator peptide PTD4-PI3KAc activates AKT and induces phosphorylation of GSK3 at S9.A. SH-SY5Y cell cultures were serum starved for 16 hours and challenged afterwards with PTD4-PI3KAc 21 uM, EGF 10 ng/mL or PTD4 (control peptide at a concentration of 21 uM). Cells were lysated at the indicated times and membranes incubated with anti-p-S473AKT and anti-p-S9GSK3beta. Levels of phosphorylation were normalized to AKT and GSK3beta (lower band), respectively. Image collected and cropped by CiteAb from the following publication (<https://dx.plos.org/10.1371/journal.pone.0118475>), licensed under a CC-BY license.



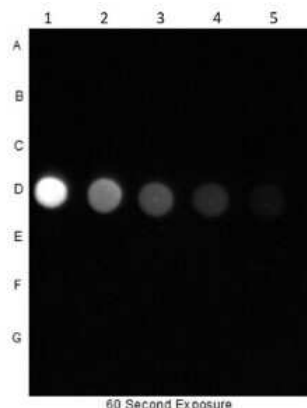
Immunohistochemistry: AKT1 [p Ser473] Antibody [NB600-590] - Immunohistochemistry of AKT1 [p Ser473] antibody. Tissue: human breast carcinoma. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: AKT1 pS473 antibody at 100 dilution for 1 h at RT. Secondary antibody: Dako's Techmate streptavidin-biotin reagents at 1:10,000 for 45 min at RT. Localization: AKT1 pS473 is nuclear and occasionally cytoplasmic.



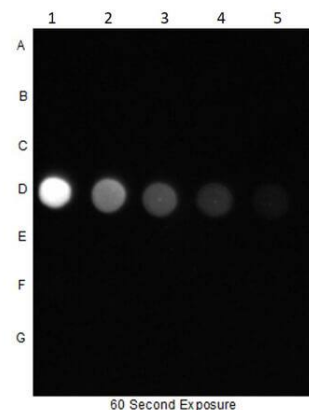
Immunohistochemistry: AKT1 [p Ser473] Antibody [NB600-590] - Immunohistochemistry at higher magnification of AKT1 [p Ser473] antibody. Tissue: human breast carcinoma. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: AKT1 pS473 antibody at 100 dilution for 1 h at RT. Secondary antibody: Dako's Techmate streptavidin-biotin reagents at 1:10,000 for 45 min at RT. Localization: AKT1 pS473 is nuclear and occasionally cytoplasmic.



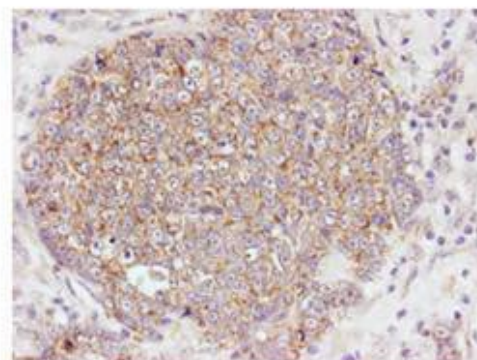
Dot Blot: AKT1 [p Ser473] Antibody [NB600-590]



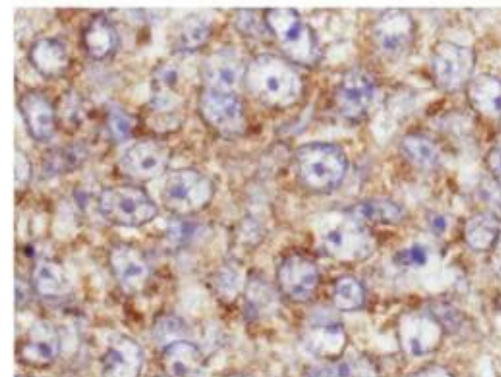
Dot Blot of Rabbit Anti-AKT pS473 Antibody. Dilutions in Columns: (1) 100ng, (2) 33.33ng, (3) 11.11ng, (4) 3.7ng, (5) 1.23ng. Tested BSA Peptide Reactivity in Rows: (A) AKT1-BSA, (B) AKT1 pT308-BSA, (C) AKT1 S473-BSA, (D) AKT1 pS473-BSA, (E) CDC27 T244-BSA, (F) CDC27 pT244-BSA, (G) BSA control. Primary Antibody: Anti-AKTpS473 at 1ug/mL overnight at 2-8C. Secondary Antibody: Goat anti-Rabbit IgG HRP



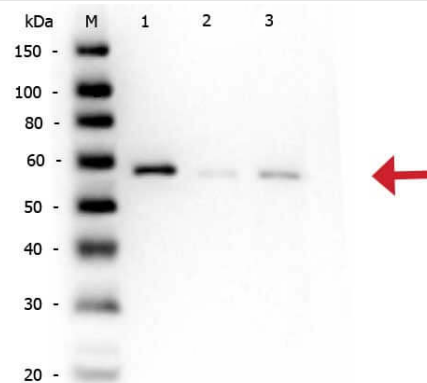
Immunohistochemistry of Rabbit Anti-Akt pS473 antibody. Tissue: human breast carcinoma. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: Akt pS473 antibody at 100 dilution for 1 h at RT. Secondary antibody: Dako's Techmate streptavidin-biotin reagents at 1:10,000 for 45 min at RT. Localization: Akt pS473 is nuclear and occasionally cytoplasmic.



Immunohistochemistry at higher magnification of Rabbit Anti-Akt pS473 antibody. Tissue: human breast carcinoma. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: Akt pS473 antibody at 100 dilution for 1 h at RT. Secondary antibody: Dako's Techmate streptavidin-biotin reagents at 1:10,000 for 45 min at RT. Localization: Akt pS473 is nuclear and occasionally cytoplasmic.



Western Blot of Rabbit anti-AKT pS473 antibody. Lane 1: AKT1 Recombinant Protein



## Publications

Jung CK, Jung SH, Yim SH et al. Predictive microRNAs for lymph node metastasis in endoscopically resectable submucosal colorectal cancer. *Oncotarget*. 2016-05-31 [PMID: 27096956] (IF/IHC, Human)

Cuesto G, Jordan-alvarez S, Enriquez-Barreto L et al. GSK3B Inhibition Promotes Synaptogenesis in Drosophila and Mammalian Neurons. *PLoS ONE*. 2015-03-13 [PMID: 25764078] (WB, Human)

Ansell SM, Tang H, Kurtin PJ et al. Temsirolimus and rituximab in patients with relapsed or refractory mantle cell lymphoma: a phase 2 study *Lancet Oncol* 2011-03-24 [PMID: 21440503]





### **Novus Biologicals USA**

10730 E. Briarwood Avenue  
Centennial, CO 80112  
USA  
Phone: 303.730.1950  
Toll Free: 1.888.506.6887  
Fax: 303.730.1966  
nb-customerservice@bio-techne.com

### **Bio-Techne Canada**

21 Canmotor Ave  
Toronto, ON M8Z 4E6  
Canada  
Phone: 905.827.6400  
Toll Free: 855.668.8722  
Fax: 905.827.6402  
canada.inquires@bio-techne.com

### **Bio-Techne Ltd**

19 Barton Lane  
Abingdon Science Park  
Abingdon, OX14 3NB, United Kingdom  
Phone: (44) (0) 1235 529449  
Free Phone: 0800 37 34 15  
Fax: (44) (0) 1235 533420  
info.EMEA@bio-techne.com

### **General Contact Information**

www.novusbio.com  
Technical Support: nb-technical@bio-techne.com  
Orders: nb-customerservice@bio-techne.com  
General: novus@novusbio.com

### **Products Related to NB600-590**

---

HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control
NBP2-52121-0.05mg	Recombinant Human AKT1 His Protein

---

### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

For more information on our 100% guarantee, please visit [www.novusbio.com/guarantee](http://www.novusbio.com/guarantee)

Earn gift cards/discounts by submitting a review: [www.novusbio.com/reviews/submit/NB600-590](http://www.novusbio.com/reviews/submit/NB600-590)

Earn gift cards/discounts by submitting a publication using this product:  
[www.novusbio.com/publications](http://www.novusbio.com/publications)

