

Product Datasheet

AKT1 Antibody NB600-608

Unit Size: 0.1 ml

Store at -20C. Avoid freeze-thaw cycles.

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NB600-608**AKT1 Antibody**

Product Information	
Unit Size	0.1 ml
Concentration	Please see the vial label for concentration. If unlisted please contact technical services.
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.01% Sodium Azide
Isotype	Serum
Purity	Delipidation and Defibrination
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Product Description	
Description	<p>This product was prepared from monospecific antiserum by a delipidation and defibrination</p> <p>Store this antibody 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>
Host	Rabbit
Gene ID	207
Gene Symbol	AKT1
Species	Human, Mouse, Rat, Chicken
Reactivity Notes	This antibody reacts with the AKT1 from human tissues. Based on sequence we expect this antibody to react as well with rat, mouse, and chicken AKT1.
Specificity/Sensitivity	Pan Anti-AKT1 Antibody reacts with the AKT1 from human tissues.
Immunogen	AKT1 Antibody was produced from whole rabbit serum prepared by repeated immunizations with a synthetic peptide R-P-H-F-P-Q-F-S-Y-S-A-S-G-T-A corresponding to the C-terminus (460-480) of human AKT1 proteins conjugated to KLH using maleimide. A residue of cysteine was added to the amino terminal end to facilitate coupling. A BLAST analysis was used to suggest reactivity with this protein from rat, mouse, and chicken based on 100% homology for the immunogen sequence. (Uniprot: P31749)

Product Application Details	
Applications	Western Blot, ELISA, Flow Cytometry, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, N/A
Recommended Dilutions	Western Blot 1:500-1:2000, Flow Cytometry 1:10-1:1000, ELISA 1:2000-1:10000, Immunohistochemistry 1:500-1:2000, Immunocytochemistry/Immunofluorescence 1:100-1:1000, Immunohistochemistry-Paraffin 1:10-1:500, N/A

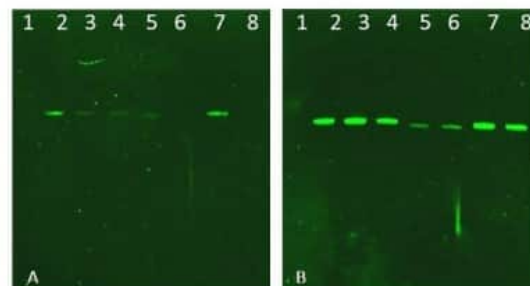


Application Notes

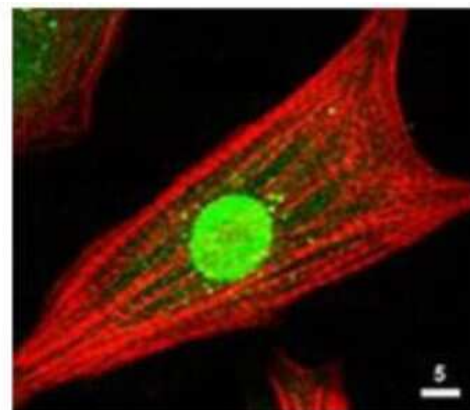
This product has been tested in Western Blot, Immunohistochemistry (Formalin-fixed paraffin-embedded sections), and Immunofluorescence (paraformaldehyde-fixed primary cardiomyocyte cultures). Expect a band at ~55.7kDa in 3T3 whole cell lysate or other appropriate cell lysates or tissues in western blot. Although not tested, this antibody would be useful in flow cytometry. Researchers should determine optimal titers for applications that are not stated below.

Images

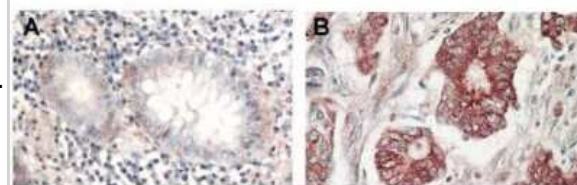
Western Blot: AKT1 Antibody [NB600-608] - Western Blot of AKT1 antibody. Lane 1: NIR MW protein ladder. Lane 2: AKT1, recombinant. Lane 3: AKT1, phosphatase-treated. Lane 4: AKT1, mutant T308A/S473A. Lane 5: AKT2, recombinant. Lane 6: AKT2, phosphatase-treated. Lane 7: AKT3, recombinant. Lane 8: AKT3, phosphatase-treated. Load: 50ng per lane. Blot A: Anti-Akt pT308 used at 1:2270, Blot B: Anti-Akt used 1:1000.



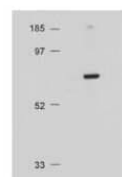
Immunocytochemistry/Immunofluorescence: AKT1 Antibody [NB600-608] - Immunofluorescence Microscopy of AKT1 antibody. Tissue: neonatal rat cardiomyocytes. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: AKT1 antibody at 1:80 dilution for 1 h at RT. Secondary antibody: Texas-red(TM) conjugated rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: AKT1 is nuclear. Staining: Anti-AKT1 staining appears green. Actin filaments are labeled red using a Texas-red(TM) conjugated phalloidin.



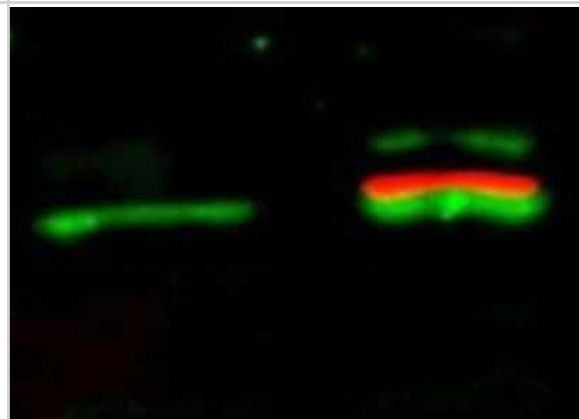
Immunohistochemistry: AKT1 Antibody [NB600-608] - Immunohistochemistry of AKT1 antibody. Tissue: (A) normal colon tissue, (B) colon tumor tissue. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: AKT1 antibody at 1:1,000 dilution for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: AKT1 is nuclear. Staining: AKT1 as precipitated red signal with hematoxylin purple nuclear counterstain.



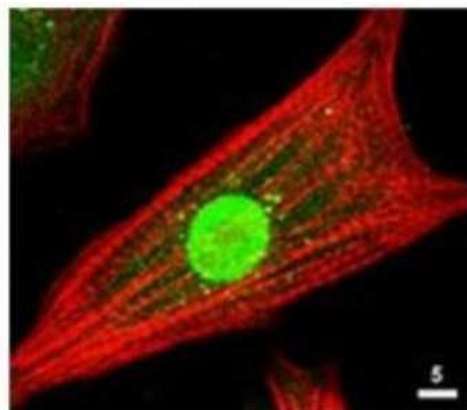
Western Blot: AKT1 Antibody [NB600-608] - Western Blot of AKT1 antibody. Lane 1: Molecular Weight. Lane 2: NIH/3T3 whole cell lysate. Load: 20 ug lysate per lane. Primary antibody: Anti-AKT1 antibody at 1:500 for overnight at 4C. Secondary antibody: HRP conjugated GT-a-Rabbit IgG at 1:10,000 preceded color development using Pierce Chemical's SuperSignal(TM) substrate. Block: MOPS buffer overnight at 4C. Predicted/Observed size: 56 kDa, 56 kDa for AKT1. Other band(s): none.



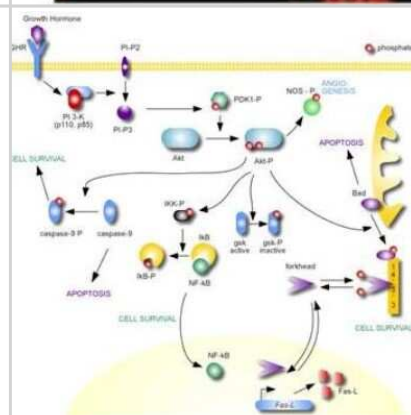
Western Blot: AKT1 Antibody [NB600-608] - Western Blot of simultaneous detection of unphosphorylated and phosphorylated AKT1 antibody. Lane 1: unstimulated NIH/3T3 lysates contain inactive unphosphorylated Akt1, green band. Lane 2: PDGF stimulated NIH/3T3 lysate contains both inactive (green band) and activated phosphorylated Akt1 (red band). Load: 35 ug per lane. Primary antibody: rabbit anti-Akt (pan) and mouse anti-Akt pS473 specific antibodies at 1:1000 for overnight at 4C. Secondary antibody: DyLight(TM) 549 conjugated anti-rabbit IgG (green) and DyLight(TM) 649 conjugated anti-mouse IgG (red) secondary antibodies at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4C.



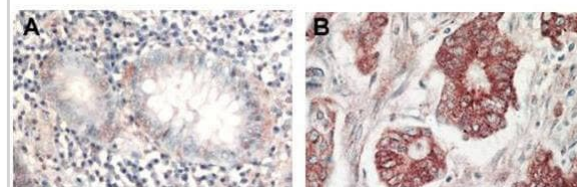
Immunocytochemistry/Immunofluorescence: AKT1 Antibody [NB600-608] - Neonatal rat cardiomyocytes. Fixation: 0.5% PFA. Antigen retrieval: not required. AKT antibody at 1:80 dilution for 1 h at RT. Texas-red (TM) conjugated rabbit secondary antibody at 1:10,000 for 45 min at RT. AKT is nuclear (green). Actin filaments are labeled red using a Texas-red (TM) conjugated phalloidin.



N/A: AKT1 Antibody [NB600-608]



Immunohistochemistry of Rabbit Anti-AKT antibody. Tissue: (A) normal colon tissue, (B) colon tumor tissue. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: AKT antibody at 1:1,000 dilution for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: AKT is nuclear. Staining: AKT as precipitated red signal with hematoxylin purple nuclear counterstain.



Publications

Davidge Pitts C, Escande CJ, Conover CA. Preferential expression PAPP-A in human preadipocytes from omental fat. *J. Endocrinol.* 2014-04-29 [PMID: 24781252] (WB, Human)

Naro C, Barbagallo F, Chieffi P et al. The centrosomal kinase NEK2 is a novel splicing factor kinase involved in cell survival. *Nucleic Acids Res* 2013-12-24 [PMID: 24369428] (WB, Human)

Sagatys E, Garrett CR, Boulware D et al. Activation of the serine/threonine protein kinase Akt during the progression of Barrett neoplasia. *Hum Pathol.* 2007-10-01 [PMID: 17640711] (IHC-P, Human)

Matsuda N, Takano Y, Kageyama S et al. Silencing of caspase-8 and caspase-3 by RNA interference prevents vascular endothelial cell injury in mice with endotoxic shock. *Cardiovasc Res* 2007-10-01 [PMID: 17601517]

Takeuchi R, Ryo A, Komitsu N et al. Low-intensity pulsed ultrasound activates the phosphatidylinositol 3 kinase/Akt pathway and stimulates the growth of chondrocytes in three-dimensional cultures: a basic science study. *Arthritis Res Ther* 2008-01-01 [PMID: 18616830]



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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.

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