

Product Datasheet

AKT1 [p Ser473] Antibody (104A282) - Azide and BSA Free NBP2-27399

Unit Size: 0.1 mg

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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NBP2-27399

AKT1 [p Ser473] Antibody (104A282) - Azide and BSA Free

Product Information	
Unit Size	0.1 mg
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	104A282
Preservative	No Preservative
Isotype	IgG1 Kappa
Purity	Protein G purified
Buffer	PBS
Target Molecular Weight	55.7 kDa

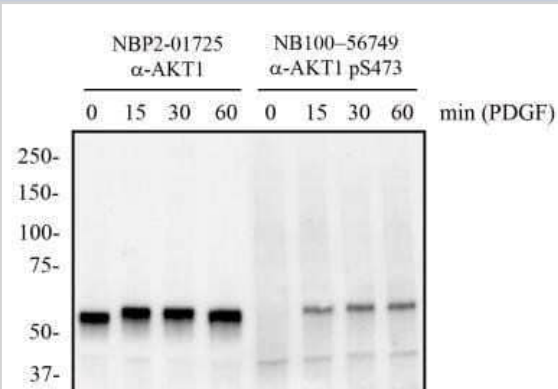
Product Description	
Host	Mouse
Gene ID	207
Gene Symbol	AKT1
Species	Human, Mouse, Rat, Rabbit
Specificity/Sensitivity	Clone 104A282 detects specifically the Ser 473 phosphorylated form of AKT1.
Immunogen	This AKT1 phospho Ser473 monoclonal antibody was raised against a synthetic peptide containing phosphorylated serines at amino acid residues 473 of human Akt1.

Product Application Details	
Applications	Western Blot, Immunohistochemistry, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 1 - 2 ug/mL, Immunohistochemistry, Immunohistochemistry-Paraffin

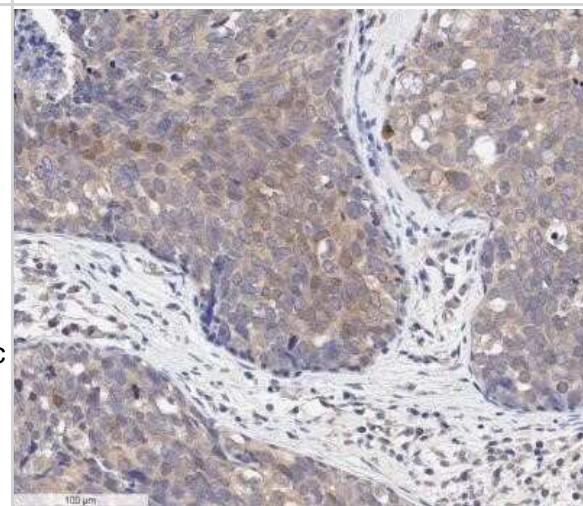


Images

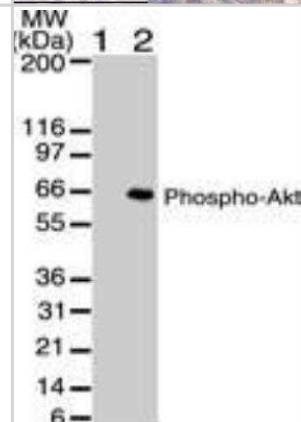
Western Blot: AKT1 [p Ser473] Antibody (104A282) - Azide and BSA Free [NBP2-27399] - Total protein from mouse 3T3 cells treated with and without PDGF (50 ng/mL) for the indicated times was separated on a 7.5% gel by SDS-PAGE, transferred to PVDF membrane and blocked in 5% non-fat milk in TBST. The membrane was probed with 2.0 ug/mL anti-AKT1 (NBP2-01725) and 2 ug/mL pS473 AKT1 in 1% BSA in TBST and detected with an anti-mouse HRP secondary antibody using chemiluminescence. Note the detection of phosphorylated AKT1 in response to PDGF treatment compared to total AKT1 protein. Image using the standard format of this product.



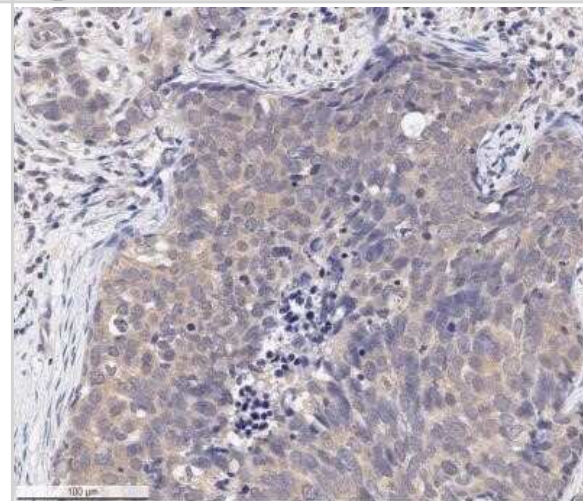
Immunohistochemistry-Paraffin: AKT1 [p Ser473] Antibody (104A282) - Azide and BSA Free [NBP2-27399] - IHC analysis of an FFPE human breast carcinoma tissue section @ 1:250 of pSer473 AKT1 antibody (clone 104A282) on a Bond Rx autostainer (Leica Biosystems). Assay: 20 mins of heat induced antigen retrieval (HIER) with 10 mM sodium citrate buffer (pH 6.0) & endogenous peroxidase quenching using peroxide block. Sections incubated with primary antibody for 30 mins. Bond Polymer Refine Detection (Leica Biosystems) & DAB used for signal detection following counterstaining with hematoxylin. Whole slide scanning & capturing of representative images (20X) performed using Aperio AT2 (Leica Biosystems). Antibody generated diffused cytoplasmic staining of phospho-AKT (Ser-473) in the cancer cells as well as the stromal cells. Some cancer cells depicted nuclear staining also. Staining was performed by Histowiz. Image using the standard format of this product.



Western Blot: AKT1 [p Ser473] Antibody (104A282) - Azide and BSA Free [NBP2-27399] - WB analysis of phospho AKT using AKT1 phospho Ser473 antibody at 2 ug/mL against untreated (lane 1) and PDGF treated (lane 2) NIH-3T3 lysate. HRP-conjugated secondary antibody and ECL substrate solution were used for this test.



Immunohistochemistry: AKT1 [p Ser473] Antibody (104A282) - Azide and BSA Free [NBP2-27399] - IHC analysis of an FFPE human breast carcinoma tissue section using 1:250 dilution of phospho Ser473 AKT1 antibody (clone 104A282) on a Bond Rx autostainer (Leica Biosystems). The assay involved 20 minutes of heat induced antigen retrieval (HIER) with 10 mM sodium citrate buffer (pH 6.0) and endogenous peroxidase quenching using peroxide block. The sections were incubated with primary antibody for 30 minutes. Bond Polymer Refine Detection (Leica Biosystems) and DAB were used for signal detection which followed counterstaining with hematoxylin. Whole slide scanning and capturing of representative images (20X) were performed using Aperio AT2 (Leica Biosystems). This antibody generated a diffused cytoplasmic staining of phosphor-AKT (Ser-473) in the cancer cells as well as the stromal cells. Staining was performed by Histowiz. Image using the standard format of this product.



Publications

Wedel S, Hudak L, Seibel JM et al. Inhibitory effects of the HDAC inhibitor valproic acid on prostate cancer growth are enhanced by simultaneous application of the mTOR inhibitor RAD001. *Life Sci.* 2011-02-28 [PMID: 21192952] (WB)

Details:

Phosphorylated Akt1 Ser473 (IMG-187A). WB: PC-3, DU-145, LNCaP cell lines treated with either RAD001 or VPA, Fig 5.

Nair AS, Shishodia S, Ahn KS et al. Deguelin, an Akt inhibitor, suppresses I κ B α kinase activation leading to suppression of NF- κ B-regulated gene expression, potentiation of apoptosis, and inhibition of cellular invasion. *J Immunol.* 2006-10-15 [PMID: 17015749]

Details:

Suppression of NF- κ B activation by curcumin leads to inhibition of expression of cyclo-oxygenase-2 and matrix metalloproteinase-9 in human articular chondrocytes; Implications for the treatment of osteoarthritis. Shakibaei M, T John, G Schulze-Tanzil, I

Elamin MH, Shinwari Z, Hendrayani SF et al. Curcumin inhibits the Sonic Hedgehog signaling pathway and triggers apoptosis in medulloblastoma cells. *Mol Carcinog.* 2010-03-01 [PMID: 20025076]

Wedel S, Hudak L, Seibel JM et al. Critical analysis of simultaneous blockage of histone deacetylase and multiple receptor tyrosine kinase in the treatment of prostate cancer. *Prostate.* 2011-05-15 [PMID: 20954195] (WB)

Details:

Product cited: AKT1 Ser473 (IMG-187A). WB: PC-3, DU-145, LNCaP cell lines treated with either AEE788 or VPA, Fig 8.

Juengel E, Engler J, Natsheh I et al. Combining the receptor tyrosine kinase inhibitor AEE788 and the mammalian target of rapamycin (mTOR) inhibitor RAD001 strongly inhibits adhesion and growth of renal cell carcinoma cells. *BMC Cancer.* 2009-05-27 [PMID: 19473483] (WB)

Details:

Phosphorylated Akt1 Ser473 (IMG-187A). WB: A498 and Caki-1 cell lines treated with AEE788 or RAD001, Fig 11.

Luty WH, Rodeberg D, Parness J, Vyas YM. Antiparallel segregation of notch components in the immunological synapse directs reciprocal signaling in allogeneic Th:DC conjugates. *J Immunol.* 2007-07-15 [PMID: 17617572]





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NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-43319-0.5mg	Mouse IgG1 Kappa Isotype Control (P3.6.2.8.1)
NBP2-27399B	AKT1 [p Ser473] Antibody (104A282) [Biotin]

Limitations

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