PRODUCT DATA SHEET

Akt Polyclonal Antibody

Catalog No.	IPB0024
Reactivity	Human; Mouse; Rat
Applications	IF/ICC; WB; IHC-p; ELISA
Dilution	IF: 1:50-200 WB: 1:500-1:2000 IHC: 1:50-1:200 ELISA: 1:40000
Gene Name	AKT1:AKT2:AKT3
Protein Name	RAC-alpha serine/threonine-protein kinase/RAC-beta serine/threonine-protein kinase/RAC-gamma serine/threonine-protein kinase
Human Gene Id	207:208:10000
Swiss-Prot	P31749:P31751:Q9Y243
Formulation	Liquid in PBS containing 50% glycerol, 05% BSA and 002% sodium azide
Source	Rabbit
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen
Concentration	1 mg/ml
Storage&Stability	-20°C/1 year
Subcellular Location	Cytoplasm Nucleus Cell membrane Nucleus after activation by integrin-linked protein kinase 1 (ILK1) Nuclear translocation is enhanced by interaction with TCL1A Phosphorylation on Tyr-176 by TNK2 results in its localization to the cell membrane where it is targeted for further phosphorylations on Thr-308 and Ser-473 leading to its activation and the activated form translocates to the nucleus Colocalizes with WDFY2 in intracellular vesicles (PubMed:16792529)
MW	55716
Background	The serine-threonine protein kinase encoded by the AKT1 gene is catalytically inactive in serum-starved primary and immortalized fibroblasts AKT1 and the related AKT2 are activated by platelet-derived growth factor The activation is rapid and specific, and it is abrogated by mutations in the pleckstrin homology domain of AKT1 It was shown that the activation occurs through phosphatidylinositol 3-kinase In the developing nervous system AKT is a critical mediator of growth factor-induced neuronal survival Survival factors can suppress apoptosis in a transcription-independent manner by activating the serine:threonine kinase AKT1, which then phosphorylates and inactivates components of the apoptotic machinery Mutations in this gene have been associated with the Proteus syndrome Multiple alternatively spliced transcript variants have been found for this gene

Products Images:

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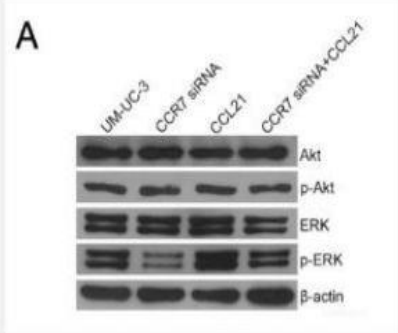
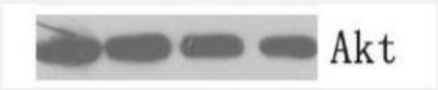
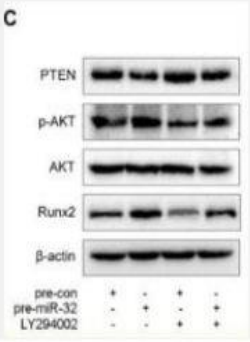


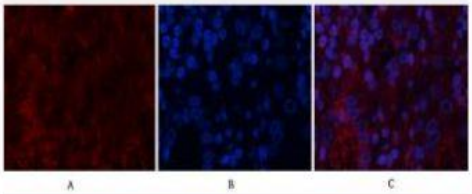
Xiong, Yang, et al. "CCL21/CCR7 interaction promotes cellular migration and invasion via modulation of the MEK/ERK1/2 signaling pathway and correlates with lymphatic metastatic spread and poor prognosis in urinary bladder cancer." International journal of oncology 51.1 (2017): 75-90.



Wang, Xinzhao, et al. "Ad-p53 enhances the sensitivity of triple-negative breast cancer MDA-MB-468 cells to the EGFR inhibitor gefitinib." Oncology reports 33.2 (2015): 526-532.



Liu, Jianghua, et al. "MicroRNA-32 promotes calcification in vascular smooth muscle cells: Implications as a novel marker for coronary artery calcification." PloS one 12.3 (2017): e0174138.



Immunofluorescence analysis of human-stomach tissue. 1,Akt Polyclonal Antibody(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B

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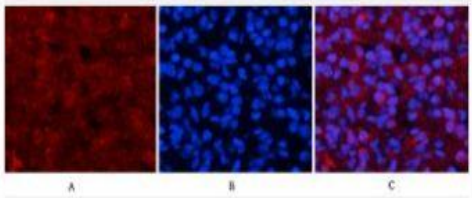
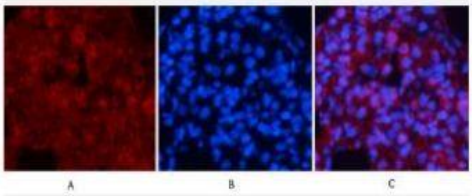


Immunofluorescence analysis of rat-lung tissue. 1,Akt Polyclonal Antibody(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



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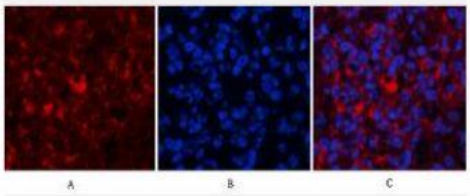
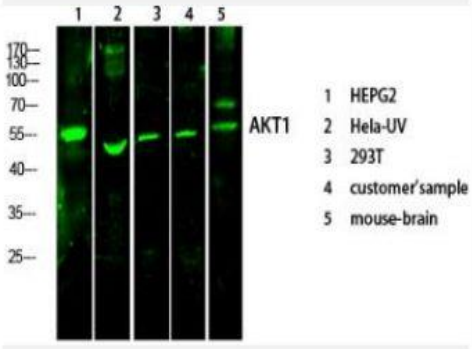


Immunofluorescence analysis of mouse-spleen tissue. 1,Akt Polyclonal Antibody(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



Western Blot analysis of various cells using primary antibody diluted at 1:1000(4°C overnight). Secondary antibody:Goat Anti-rabbit IgG IRDye 800(diluted at 1:5000, 25°C, 1 hour)

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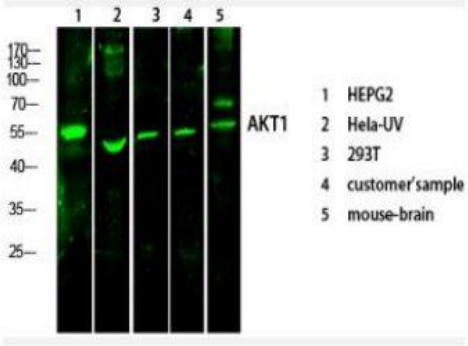

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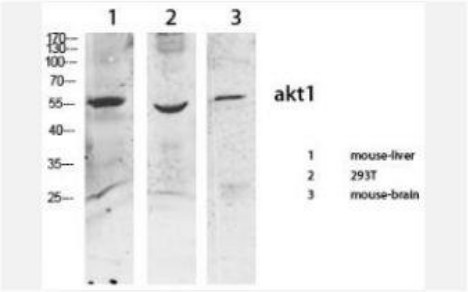
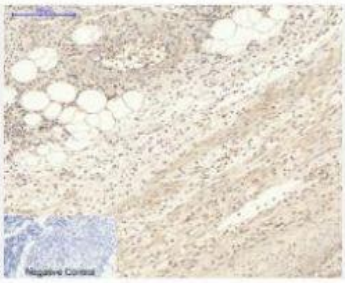


Western Blot analysis of various cells using primary antibody diluted at 1:1000(4°C overnight). Secondary antibody:Goat Anti-rabbit IgG IRDye 800(diluted at 1:5000, 25°C, 1 hour). Cell lysate was extracted by Minute™ Plasma Membrane Protein Isolation and Cell Fractionation Kit(SM-005, Inventbiotech,MN,USA).

Immunohistochemical analysis of paraffin-embedded Human-uterus-cancer tissue. 1,Akt Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Human-Appendix tissue. 1,Akt Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by secondary antibody only.

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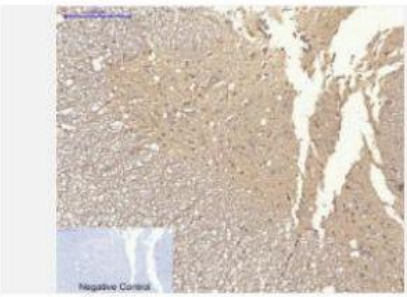
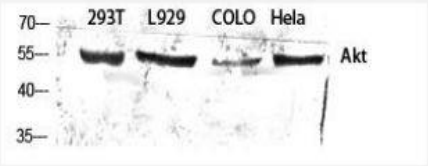
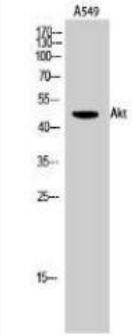


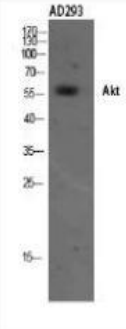
Immunohistochemical analysis of paraffin-embedded Rat-spinal-cord tissue. 1,Akt Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by secondary antibody only.



Western Blot analysis of various cells using Akt Polyclonal Antibody diluted at 1:2000



Western Blot analysis of A549 cells using Akt Polyclonal Antibody diluted at 1:2000



Western Blot analysis of AD293 using Akt Polyclonal Antibody. Antibody was diluted at 1:2000

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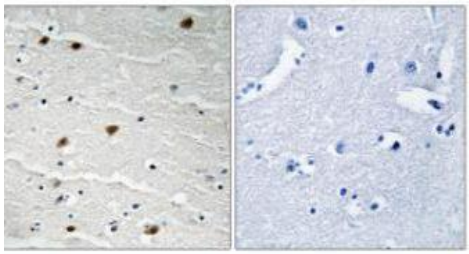
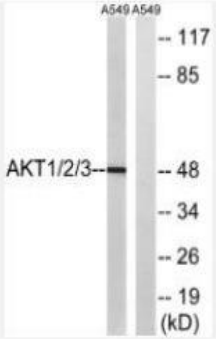
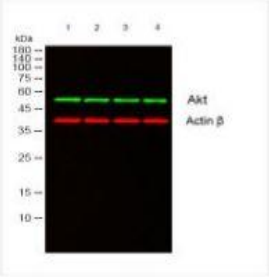


Immunohistochemistry analysis of paraffin-embedded human brain tissue, using AKT1/2/3 Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from A549 cells, using AKT1/2/3 Antibody. The lane on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from 1) 293T, 2) L929, 3) COLO, 4) Hela cells, (Green) primary antibody was diluted at 1:1000, 4°over night, secondary antibody(cat:RS23920)was diluted at 1:10000, 37° 1hour. (Red) Actin β Monoclonal Antibody(5B7) (cat:YM3028) antibody was diluted at 1:5000 as loading control, 4° over night,secondary antibody(cat:RS23710)was diluted at 1:10000, 37° 1hour.