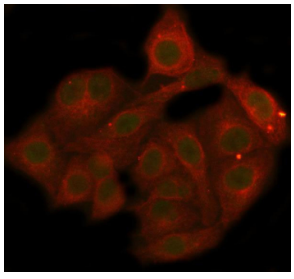
Phospho-AKT1 Antibody (pT450) [clone HEA-1] (RQ8829)

Catalog No.	Formulation	Size
RQ8829	Antibody in PBS with 0.02% sodium azide, 50% glycerol and 0.4-0.5mg/ml BSA	100 ul

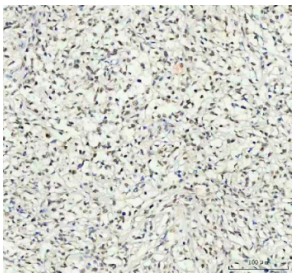
Recombinant RABBIT MONOCLONAL

Bulk quote request

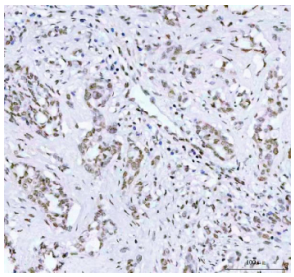
Availability	1-3 days
Species Reactivity	Human, Mouse, Rat
Format	Purified
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	HEA-1
Localization	Nucleus, plasma membrane, cytoplasm
Applications	Western Blot : 1:500-1:2000 Immunohistochemistry (FFPE) : 1:50-1:200 Immunofluorescence : 1:50-1:200
Limitations	This Phospho-AKT1 Antibody is available for research use only.



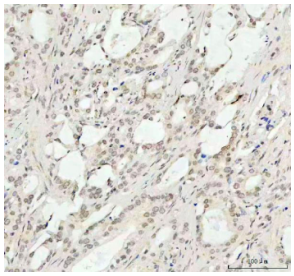
Immunofluorescent staining of FFPE human A549 cells with Phospho-AKT1 Antibody (green) and Beta Actin antibody (red). HIER: steam section in pH6 citrate buffer for 20 min.



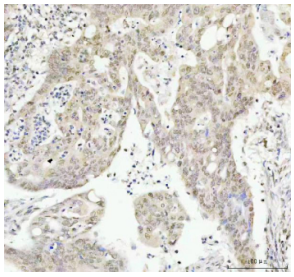
IHC staining of FFPE human intestinal diffuse large B-cell lymphoma tissue with Phospho-AKT1 Antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



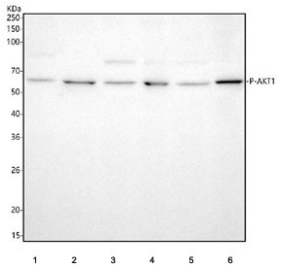
IHC staining of FFPE human lung adenocarcinoma tissue with Phospho-AKT1 Antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



IHC staining of FFPE human prostate cancer tissue with Phospho-AKT1 Antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



IHC staining of FFPE human colorectal adenocarcinoma tissue with Phospho-AKT1 Antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Western blot testing of 1) human HeLa, 2) human MCF7, 3) rat brain, 4) rat PC-12, 5) mouse brain and 6) mouse NIH 3T3 cell lysate with Phospho-AKT1 Antibody.

Description

One of the key functions of phosphorylated AKT1 is its role in promoting cell survival. By activating various downstream signaling pathways, phosphorylated AKT1 can inhibit apoptosis (programmed cell death) and promote cell proliferation. This makes it a critical player in the maintenance of tissue homeostasis and the prevention of diseases such as cancer. Additionally, phosphorylated AKT1 is involved in the regulation of metabolism. By activating key enzymes and transporters, this modified protein can help to coordinate processes such as glucose uptake and lipid synthesis. This metabolic regulation is essential for the proper functioning of cells and tissues throughout the body. Intriguingly, research has also suggested that phosphorylated AKT1 may play a role in neuroprotection and cognitive function. By influencing synaptic plasticity and neuronal survival, this protein could have far-reaching implications for the treatment of neurological disorders and age-related cognitive decline.

Application Notes

Optimal dilution of the Phospho-AKT1 Antibody should be determined by the researcher.

Immunogen

A synthetic peptide specific to the region of human AKT1 protein surrounding phosphorylated threonine 450 was used as the immunogen for the Phospho-AKT1 Antibody.

Storage

Store the Phospho-AKT1 antibody at -20oC.