

Human Akt1 antibody

Catalog Number: ATGA0480

PRODUCT INFORMATION

Catalog number

ATGA0480

Clone No.

AT6D5

Product type

Monoclonal Antibody

UnitProt No.

P31749

NCBI Accession No.

NP_001014432

Alternative Names

Protein kinase B, Protein kinase B alpha, Proto-oncogene c-Akt, RAC-PK-alpha

PRODUCT SPECIFICATION

Antibody Host

Mouse

Reacts With

Human

Concentration

1mg/ml (determined by BCA assay)

Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% glycerol

Immunogen

Recombinant human AKT1 (1-480aa) purified from insect cell.

Isotype

IgG2a kappa

Purification Note

By protein-A affinity chromatography

Application

ELISA, WB, ICC/IF, FACS

Usage

The antibody has been tested by Western blot analysis, Flow cytometry and ICC/IF to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.

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Storage

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

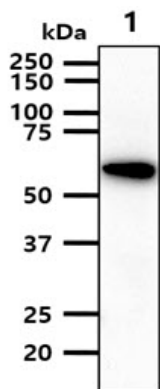
AKT1, also known as RAC-alpha serine/threonine-protein kinase, is catalytically inactive in serum-starved primary and immortalized fibroblasts. AKT1 and the related AKT2 are activated by platelet-derived growth factor. The activation is rapid and specific, and it is abrogated by mutations in the pleckstrin homology domain of AKT1. It was shown that the activation occurs through phosphatidylinositol 3-kinase. 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.

General References

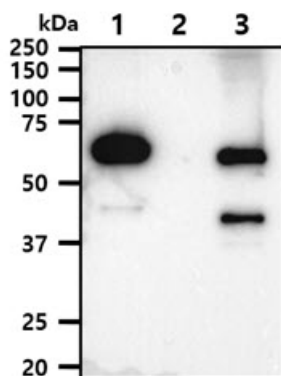
Lindhurst MJ, et al (2011) N Engl J Med. 365(7): 611-9.

DATA

Western blot analysis (WB)



The cell lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human AKT1/3 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.
Lane 1.: NIH3T3 cell lysate

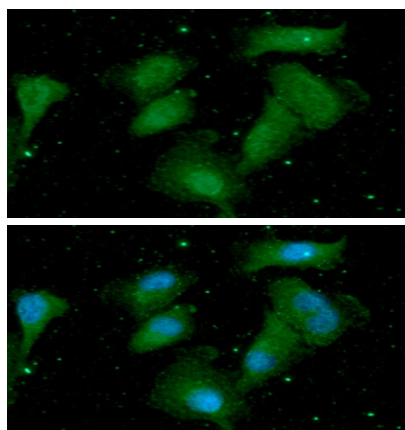


The recombinant proteins (50ng) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human AKT1/3 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.
Lane 1.: Recombinant Human AKT1
Lane 2.: Recombinant Human AKT2
Lane 3.: Recombinant Human AKT3

Immunocytochemistry/Immunofluorescence (ICC/IF)

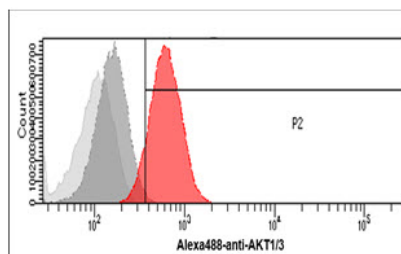
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ICC/IF analysis of AKT1/3 in A549 cells. The cell was stained with ATGA0480 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).

Flow cytometry (FACS)



Flow cytometry analysis of AKT1/3 in A549 cells. The cell was stained with ATGA0480 at 2-5ug for 1x10⁶ cells (red). A Goat anti mouse IgG (Alexa fluor 488) was used as the secondary antibody. Mouse monoclonal IgG was used as the isotype control (dark gray), cells without incubation with primary and secondary antibody was used as the negative control (light gray).