# PRODUCT DATA SHEET

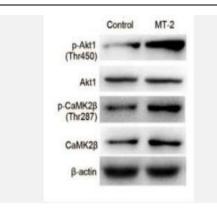
#### Akt1 Polyclonal Antibody

| Catalog No.          | IPB0322  |
|----------------------|--|
| Reactivity           | Human; Mouse; Rat  |
| Applications         | WB; IHC-p; ELISA   |
| Dilution             | WB: 1:500-1:2000 IHC: 1:50-1:200 ELISA: 1:20000  |
| Gene Name            | AKT1   |
| Protein Name         | RAC-alpha serine/threonine-protein kinase  |
| Human Gene Id        | 207  |
| Swiss-Prot           | P31749   |
| 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-<br>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-<br>linked protein kinase 1 (ILK1) Nuclear translocation is enhanced by<br>interaction with TCL1A Phosphorylation on Tyr-176 by TNK2 results in its<br>localization to the cell membrane where it is targeted for further<br>phosphorylations on Thr-308 and Ser-473 leading to its activation and the<br>activated form translocates to the nucleus Colocalizes with WDFY2 in<br>intracellular vesicles (PubMed:16792529)  |
| MW                   | 55686  |
| Background           | The serine-threonine protein kinase encoded by the AKT1 gene is catalytically<br>inactive in serum-starved primary and immortalized fibroblasts AKT1 and the<br>related AKT2 are activated by platelet-derived growth factor The activation is<br>rapid and specific, and it is abrogated by mutations in the pleckstrin homology<br>domain of AKT1 It was shown that the activation occurs through<br>phosphatidylinositol 3-kinase In the developing nervous system AKT is a<br>critical mediator of growth factor-induced neuronal survival Survival factors<br>can suppress apoptosis in a transcription-independent manner by activating<br>the serine:threonine kinase AKT1, which then phosphorylates and inactivates<br>components of the apoptotic machinery Mutations in this gene have been<br>associated with the Proteus syndrome Multiple alternatively spliced transcript<br>variants have been found for this gene |

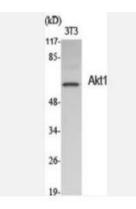
#### **Products Images:**



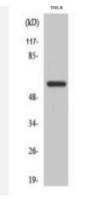
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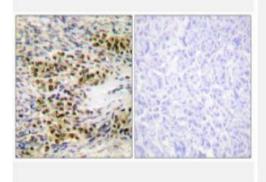
Zhou, Dong-Dong, et al. "Metallothionein-2 is associated with the amelioration of asthmatic pulmonary function by acupuncture through protein phosphorylation." Biomedicine & Pharmacotherapy 123 (2020): 109785.



Western Blot analysis of various cells using Akt1 Polyclonal Antibody diluted at 1:1000



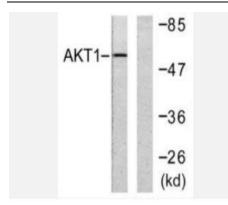
Western Blot analysis of HeLa cells using Akt1 Polyclonal Antibody diluted at 1:1000



Immunohistochemistry analysis of paraffin-embedded human ovary tissue, using Akt Antibody. The picture on the right is blocked with the synthesized peptide.

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Western blot analysis of lysates from HeLa cells, treated with Etoposide 25uM 24h, using Akt Antibody. The lane on the right is blocked with the synthesized peptide.