

## Recombinant AKT1 (Prognostic Marker for Neuroendocrine Tumors) Antibody

Mouse Monoclonal Antibody [Clone rAKT1/2491]

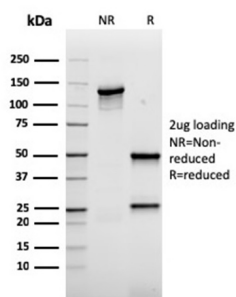
Catalog No	Format	Size
207-MSM5-P0	Purified Ab with BSA and Azide	200ug/ml
207-MSM5-P1	Purified Ab with BSA and Azide	200ug/ml
207-MSM5-P1ABX	Purified Ab WITHOUT BSA and Azide	1.0mg/ml

Applications	Tested Dillution
Immunohistochemistry (IHC)	1-2ug/ml
Western Blot (WB)	2-4ug/ml

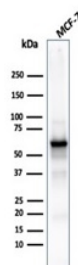
Product Details	
Clone	rAKT1/2491
Gene Name	AKT1
Immunogen	Recombinant fragment of human AKT1 protein (around aa 85-189) (exact sequence is proprietary)
Host	Mouse
Clonality	Monoclonal
Isotype / Light Chain	IgG1 / Kappa
Mol. Weight of Antigen	62kDa
Cellular Localization	Cell membrane, Cytoplasm, Nucleus
Species Reactivity	Human
Positive Control	MCF-7 cells. PDGF-treated NIH/3T3 cells. HeLa cell lysates. Human pancreas or cervical carcinoma.

*\*Optimal dilution for a specific application should be determined.*

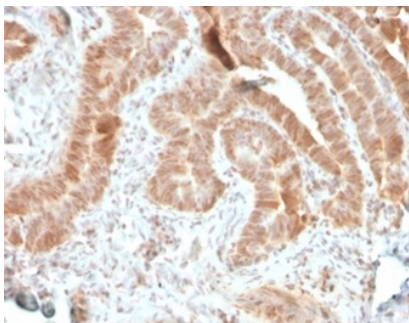
### Product Images for Recombinant AKT1 (Prognostic Marker for Neuroendocrine Tumors) Antibody



SDS-PAGE Analysis of Purified AKT1 Recombinant Mouse Monoclonal Antibody (rAKT1/2491). Confirmation of Integrity and Purity of Antibody.



Western Blot Analysis of MCF-7 cell lysate using AKT1 Recombinant Mouse Monoclonal Antibody (rAKT1/2491).



Formalin-fixed, paraffin-embedded human colon carcinoma stained with AKT1 Recombinant Mouse Monoclonal Antibody (rAKT1/2491).

### Specificity & Comments

Recognizes a protein of 62kDa, which is identified as AKT1. The serine/threonine kinase Akt family contains several members, including Akt1 (also designated PKB or RacPK), Akt2 (also designated PKB $\beta$  or RacPK- $\beta$ ) and Akt 3 (also designated PKB $\gamma$  or thymoma viral proto-oncogene 3), which exhibit sequence homology with the protein kinase A and C families and are encoded by the c-Akt proto-oncogene. All members of the Akt family have a Pleckstrin homology domain. Akt1 and Akt2 are activated by PDGF stimulation. This activation is dependent on PDGFR- $\beta$  tyrosine residues 740 and 751, which bind the subunit of the phosphatidylinositol 3-kinase (PI 3-kinase) complex. Activation of Akt1 by insulin or insulin-growth factor-1 (IGF-1) results in phosphorylation of both Thr 308 and Ser 473. Akt proteins become phosphorylated and activated in insulin/IGF-1-stimulated cells by an upstream kinase(s), and the activation of Akt1 and Akt2 is inhibited by the PI kinase inhibitor wortmannin.

### Research Areas

AKT Signaling, BBB VCAM-1 Signaling, Breast Cancer, Cardiovascular, Colon Cancer, Cytokine Signaling, Developmental Biology, Immunology, Infectious Disease, Lung Cancer, MAPK Signaling, Neuroinflammation, Nuclear Marker, Ovarian Cancer, Signal Transduction, Transcription Factors

### Known Applications & Suggested Dilutions

Western Blot (1-2 $\mu$ g/ml) | Immunohistochemistry (Formalin-fixed) (1-2 $\mu$ g/ml for 30 min at RT), (Staining of formalin-fixed tissues requires boiling tissue sections in 10mM Citrate Buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes), Optimal dilution for a specific application should be determined.

### Limitations and Warranty

This antibody is available for research use only and is not approved for use in diagnosis.

There are no warranties, expressed or implied, which extend beyond this description. Company is not liable for any personal injury or economic loss resulting from this product.

### Supplied As

200 $\mu$ g/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 1mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

### Storage and Stability

Antibody with azide - store at 2 to 8  $^{\circ}$ C. Antibody without azide - store at -20 to -80  $^{\circ}$ C. Antibody is stable for 24 months. Non-hazardous. No MSDS required.