

## AKT1 (Prognostic Marker for Neuroendocrine Tumors) Antibody

Mouse Monoclonal Antibody [Clone AKT1/2784]

Catalog No	Format	Size
207-MSM4-P0	Purified Ab with BSA and Azide at 200ug/ml	20 ug
207-MSM4-P1	Purified Ab with BSA and Azide at 200ug/ml	100 ug
207-MSM4-P1ABX	Purified Ab WITHOUT BSA and Azide at 1.0mg/ml	100 ug

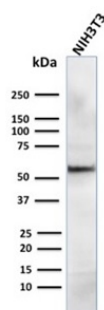
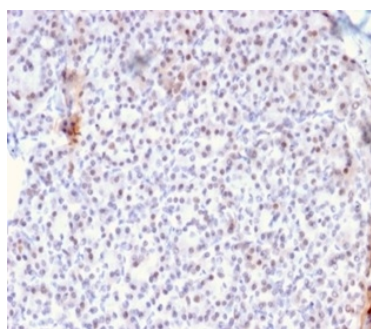
Applications	Tested Dillution	Note
Immunohistochemistry (IHC)	1-2ug/ml	30 min at RT. Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95°C followed by cooling at RT for 20 minutes
Western Blot (WB)	2-4ug/ml	

### Product Details

<b>Clone</b>	AKT1/2784
<b>Gene Name</b>	AKT1
<b>Immunogen</b>	Recombinant fragment of human AKT1 protein (around aa 1-200) (exact sequence is proprietary)
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Isotype / Light Chain</b>	IgG2b / Kappa
<b>Mol. Weight of Antigen</b>	62kDa
<b>Cellular Localization</b>	Cell membrane, Cytoplasm, Nucleus
<b>Species Reactivity</b>	Human
<b>Positive Control</b>	PDGF-treated NIH/3T3 cells. HeLa cell lysates. Human pancreas or cervical carcinoma.

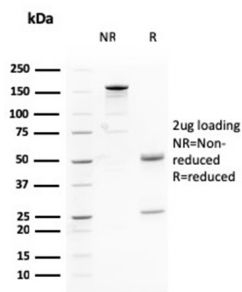
\*Optimal dilution for a specific application should be determined.

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

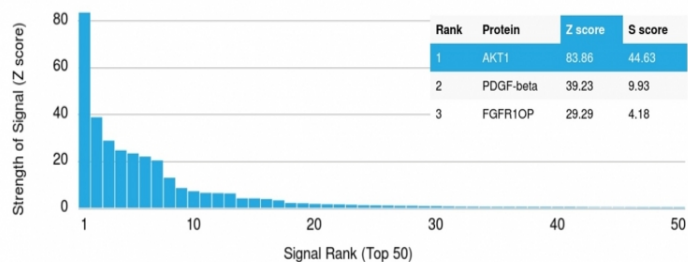


Formalin-fixed, paraffin-embedded human pancreas stained with AKT1 Mouse Monoclonal Antibody (AKT1/2784). HIER: Tris/EDTA, pH9.0, 45min. 2°: HRP-polymer, 30min. DAB, 5min.

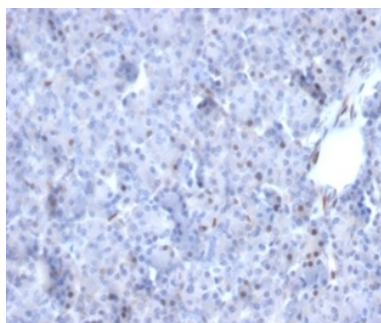
Western Blot Analysis of NIH3T3 cell lysate using AKT1 Mouse Monoclonal Antibody (AKT1/2784).



SDS-PAGE Analysis Purified AKT1 Mouse Monoclonal Antibody (AKT1/2784). Confirmation of Purity and Integrity of Antibody.



Analysis of Protein Array containing more than 19,000 full-length human proteins using AKT1-Monospecific Mouse Monoclonal Antibody (AKT1/2784). Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (MAb) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProt™ array. Z-scores are described in units of standard deviations (SDs) above the mean value of all signals generated on that array. If targets on HuProt™ are arranged in descending order of the Z-score, the S-score is the difference (also in units of SDs) between the Z-score. S-score therefore represents the relative target specificity of a MAb to its intended target. A MAb is considered to be specific to its intended target, if the MAb has an S-score of at least 2.5. For example, if a MAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that MAb to protein X is equal to 29.



Formalin-fixed, paraffin-embedded human pancreas stained with AKT1 Mouse Monoclonal Antibody (AKT1/2784). HIER: Tris/EDTA, pH9.0, 45min. 2°: HRP-polymer, 30min. DAB, 5min.

## 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.

## 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

200ug/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 °C. Antibody without azide - store at -20 to -80 °C. Antibody is stable for 24 months. Non-hazardous. No MSDS required.

## Research Areas

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