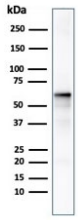
AKT1 Antibody [clone AKT1/2491] (V3797)

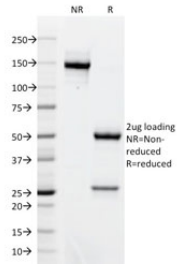
Catalog No.	Formulation	Size
V3797-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3797-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3797SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

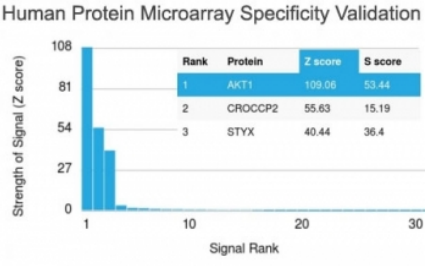
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	AKT1/2491
Purity	Protein G affinity chromatography
UniProt	P31749
Localization	Nucleus, plasma membrane, cytoplasm
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT Western blot: 2-4g/ml
Limitations	This AKT1 antibody is available for research use only.



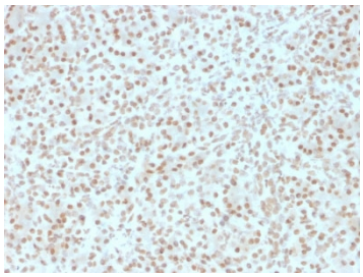
AKT1 Antibody MCF7 WB. Western blot testing of human MCF7 cell lysate with AKT1 antibody. Predicted molecular weight ~56 kDa.



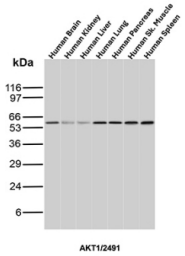
SDS-PAGE analysis of purified, BSA-free AKT1 antibody as confirmation of integrity and purity.



Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using AKT1 antibody. These results demonstrate the foremost specificity of the AKT1/2491 mAb.
Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.



AKT1 Antibody Pancreas IHC. Immunohistochemistry testing of FFPE human pancreas with AKT1 antibody. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 min.



AKT1 Antibody Tissue WB. Western blot analysis of human brain, kidney, liver, lung, pancreas, skeletal muscle, and spleen tissue lysates using AKT1 antibody (clone AKT1/2491) detects a band at approximately 55-60 kDa, consistent with the predicted molecular weight of AKT1, with broad expression observed across tissues.

Description

AKT1 Antibody detects AKT1, a serine/threonine kinase Akt family member. The 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 thyoma 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.

For a microarray-validated AKT1 antibody supporting high-specificity detection, see our AKT1 antibody (clone AKT1/2552).

Application Notes

Titering of the AKT1 antibody may be required for optimal performance.

Immunogen

A portion of amino acids 85-189 from the human protein was used as the immunogen for the AKT1 antibody.

Storage

Store the AKT1 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

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