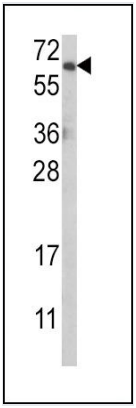
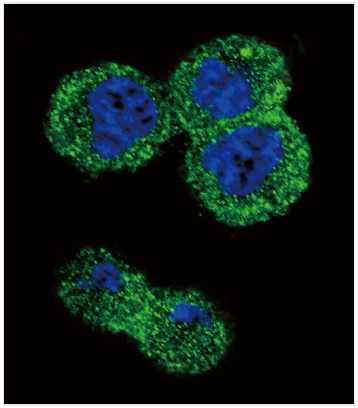
AKT1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

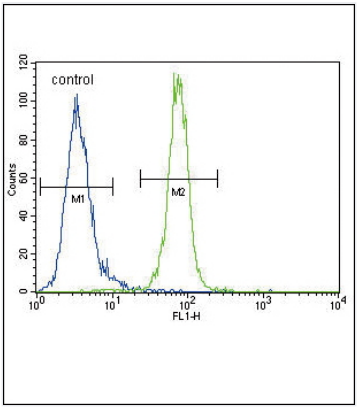
Product Name	AKT1, Polyclonal Antibody
Full Product Name	AKT1, NT (RAC-alpha Serine/Threonine-protein Kinase, RAC-PK-alpha, Protein Kinase B, PKB, Proto-oncogene c-Akt, PKB, RAC) (AP)
Product Gene Name	anti-AKT1 antibody
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Alkaline Phosphatase.
Purity/Purification	Purified by Ammonium Sulfate Precipitation.
Specificity	Recognizes human AKT1.
Preparation and Storage	May be stored at 4 degree C for short-term only. Aliquot to avoid repeated freezing and thawing. Store at -20 degree C. Aliquots are stable for at least 12 months. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.
Molecular Weight	55,686 Da
OMIM	114480
3D Structure	ModBase 3D Structure for P31749
Immunogen	Synthetic peptide selected from the N-terminal region of human AKT1 (KLH).
Conjugate	AP
Note	Preservative Free
Product Categories/Family for anti-AKT1 antibody	Antibodies; Protein Kinases
Applications Tested/Suitable for anti-AKT1 antibody	Western Blot (WB), ELISA (EIA)
Application Notes for anti-AKT1 antibody	WB: 1:50-1:100 ELISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-AKT1 antibody	MBS6462061 is an antibody targeting AKT1. Also known as AKT1, NT (RAC-alpha Serine/Threonine-protein Kinase, RAC-PK-alpha, Protein Kinase B, PKB, Proto-oncogene c-Akt, PKB, RAC) (AP). Reactive in Human. Host: Rabbit.
Other Notes	Small volumes of anti-AKT1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Western Blot (WB) of anti-AKT1 antibody
Western blot analysis of AKT1 Antibody (N-term) in MCF-7 cell line lysates (35ug/lane). AKT1 (arrow) was detected using the purified Pab.



Immunofluorescence (IF) of anti-AKT1 antibody
Confocal immunofluorescent analysis of AKT1 Antibody (N-term) with MDA-MB435 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green).DAPI was used to stain the cell nuclear (blue).



Flow Cytometry (FC/FACS) of anti-AKT1 antibody
AKT1 Antibody (N-term) flow cytometric analysis of MDA-MB435 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for AKT1. It may not necessarily be applicable to this product.

NCBI GI #	62241013
NCBI GeneID	207
NCBI Accession #	NP_001014431
UniProt Primary Accession #	P31749
UniProt Related Accession #	P31749
GenBank Nucleotide #	NM_001014431
NCBI Official Full Name	RAC-alpha serine/threonine-protein kinase
NCBI Official Synonym Full Names	v-akt murine thymoma viral oncogene homolog 1
NCBI Official Symbol	AKT1
NCBI Official Synonym Symbols	AKT; PKB; RAC; CWS6; PRKBA; PKB-ALPHA; RAC-ALPHA
UniProt Protein Name	RAC-alpha serine/threonine-protein kinase
UniProt Synonym Protein Names	Protein kinase B; PKB; Protein kinase B alpha; PKB alpha; Proto-oncogene c-Akt; RAC-PK-alpha
Protein Family	Potassium channel

UniProt Gene Name	AKT1
UniProt Synonym Gene Names	PKB; RAC; PKB; PKB alpha
UniProt Entry Name	AKT1_HUMAN
NCBI Protein Information	RAC-alpha serine/threonine-protein kinase; AKT1m; PKB alpha; RAC-PK-alpha; protein kinase B alpha; proto-oncogene c-Akt; rac protein kinase alpha
UniProt Comments for AKT1	Akt1: an oncogenic AGC kinase that plays a critical role in regulating cell survival and metabolism in many different signaling pathways. Dual phosphorylation is required for its activation. T308 is phosphorylated by PDK1 in the PI3 kinase pathway, and S473 is phosphorylated by mTOR in the mTORC2 pathway. The 'Lys-63'-linked ubiquitination of AKT1 by TRAF6 is important for its translocation to the plasma membrane, phosphorylation, and activation. When Akt is fully phosphorylated it translocates into the nucleus, undergoes 'Lys-48'-polyubiquitination catalyzed by TTC3, leading to its proteosomal degradation. Hyperactive or overexpressed in a number of cancers including breast, prostate, lung, pancreatic, liver, ovarian and colorectal. Over 160 protein substrates are known including many that regulate transcription, metabolism, apoptosis, cell cycle, and growth. Protein type: EC 2.7.11.1; Protein kinase, Ser/Thr (non-receptor); Protein kinase, AGC; Oncoprotein; Kinase, protein; AGC group; AKT family Chromosomal Location of Human Ortholog: 14q32.32 Cellular Component: nucleoplasm; microtubule cytoskeleton; mitochondrion; cytoplasm; plasma membrane; spindle; intercellular junction; nucleus; cytosol Molecular Function: identical protein binding; protein serine/threonine kinase activity; protein binding; phosphatidylinositol-3,4,5-triphosphate binding; enzyme binding; protein kinase C binding; nitric-oxide synthase regulator activity; protein serine/threonine/tyrosine kinase activity; kinase activity; phosphatidylinositol-3,4-bisphosphate binding; ATP binding; protein kinase activity Biological Process: negative regulation of JNK cascade; positive regulation of nitric oxide biosynthetic process; regulation of myelination; nerve growth factor receptor signaling pathway; protein ubiquitination; glucose homeostasis; regulation of cell migration; protein amino acid phosphorylation; G1/S-specific positive regulation of cyclin-dependent protein kinase activity; germ cell development; positive regulation of glucose import; cell projection organization and biogenesis; protein catabolic process; maternal placenta development; response to food; platelet activation; glycogen biosynthetic process; fibroblast growth factor receptor signaling pathway; positive regulation of nitric-oxide synthase activity; positive regulation of blood vessel endothelial cell migration; glucose metabolic process; positive regulation of lipid biosynthetic process; positive regulation of cell growth; insulin-like growth factor receptor signaling pathway; cellular response to insulin stimulus; response to heat; T cell costimulation; positive regulation of fat cell differentiation; negative regulation of protein kinase activity; striated muscle cell differentiation; positive regulation of transcription from RNA polymerase II promoter; positive regulation of endothelial cell proliferation; positive regulation of transcription factor activity; response to oxidative stress; regulation of nitric-oxide synthase activity; negative regulation of apoptosis; negative regulation of autophagy; negative regulation of fatty acid beta-oxidation; translation; apoptosis; protein amino acid autophosphorylation; regulation of glycogen biosynthetic process; positive regulation of cellular protein metabolic process; positive regulation of glycogen biosynthetic process; negative regulation of cell size; negative regulation of caspase activity; glucose transport; signal transduction; nitric oxide metabolic process; regulation of translation; apoptotic mitochondrial changes; protein kinase B signaling cascade; inflammatory response; nitric oxide biosynthetic process; cell differentiation; activated T cell apoptosis; aging; negative regulation of proteolysis; epidermal growth factor receptor signaling pathway; phosphoinositide-mediated signaling; myelin maintenance in the peripheral nervous system; protein modification process; endocrine pancreas development; positive regulation of peptidyl-serine phosphorylation; osteoblast differentiation; cell proliferation; G-protein coupled receptor protein signaling pathway; peptidyl-serine phosphorylation; protein import into nucleus, translocation; positive regulation of proteasomal ubiquitin-dependent protein catabolic process; insulin receptor signaling pathway; positive regulation of vasoconstriction; innate immune response; gene expression; positive regulation of protein amino acid phosphorylation; blood coagulation; vascular endothelial growth factor receptor signaling pathway; phosphorylation; hyaluronan metabolic process Disease: Schizophrenia; Cowden Syndrome 6; Proteus Syndrome; Breast Cancer; Ovarian Cancer

Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/polyclonal-human-antibody/akt1/6462061