

Akt2 Monoclonal Antibody

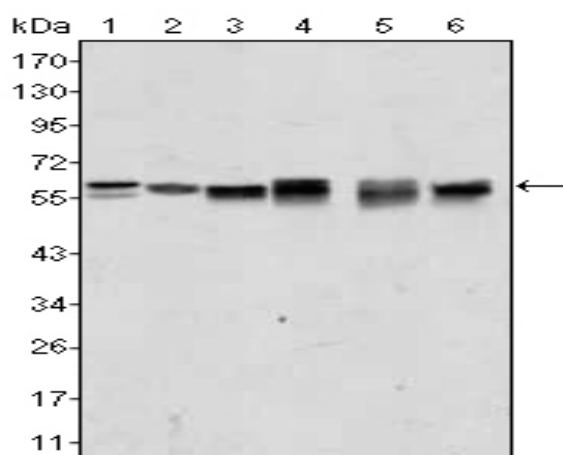
Catalog No :	YM0019
Reactivity :	Human;Rat;Monkey
Applications :	WB;IHC;IF;ELISA
Target :	Akt2
Fields :	>>EGFR tyrosine kinase inhibitor resistance;>>Endocrine resistance;>>Platinum drug resistance;>>MAPK signaling pathway;>>ErbB signaling pathway;>>Ras signaling pathway;>>Rap1 signaling pathway;>>cGMP-PKG signaling pathway;>>cAMP signaling pathway;>>Chemokine signaling pathway;>>HIF-1 signaling pathway;>>FoxO signaling pathway;>>Sphingolipid signaling pathway;>>Phospholipase D signaling pathway;>>Autophagy - animal;>>mTOR signaling pathway;>>PI3K-Akt signaling pathway;>>AMPK signaling pathway;>>Apoptosis;>>Longevity regulating pathway;>>Longevity regulating pathway - multiple species;>>Cellular senescence;>>Adrenergic signaling in cardiomyocytes;>>VEGF signaling pathway;>>Apelin signaling pathway;>>Osteoclast differentiation;>>Focal adhesion;>>Signaling pathways regulating pluripotency of stem cells;>>Platelet activation;>>Neutrophil extracellular trap formation;>>Toll-like receptor signaling pathway;>>C-type lectin receptor signaling pathway;>>JAK-STAT signaling pathway;>>T cell recept
Gene Name :	AKT2
Protein Name :	RAC-beta serine/threonine-protein kinase
Human Gene Id :	208
Human Swiss Prot No :	P31751
Mouse Swiss Prot No :	Q60823
Rat Gene Id :	25233
Rat Swiss Prot No :	P47197
Immunogen :	Purified recombinant fragment of human Akt2 expressed in E. Coli.

Specificity :	Akt2 Monoclonal Antibody detects endogenous levels of Akt2 protein.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Monoclonal, Mouse
Dilution :	WB 1:500 - 1:2000. IHC 1:200 - 1:1000. IF 1:200 - 1:1000. ELISA: 1:10000. Not yet tested in other applications.
Purification :	Affinity purification
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)
Observed Band :	56kD
Cell Pathway :	Regulation_Microtubule; Stem cell pathway; T_Cell_Receptor; Regulates Angiogenesis; Insulin Receptor; Toll_Like; ErbB/HER; AMPK; MAPK_ERK_Growth;MAPK_G_Protein; B_Cell_Antigen; Adherens_Junction; PI3K
P References :	<ol style="list-style-type: none">1. Am J Physiol Endocrinol Metab. 2004 Jul;287(1):E8-E15.2. Oncol Rep. 2004 Jan;11(1):25-32.3. Cancer Res. 2003 Jan 1;63(1):196-206.
Background :	This gene is a putative oncogene encoding a protein belonging to a subfamily of serine/threonine kinases containing SH2-like (Src homology 2-like) domains. The gene was shown to be amplified and overexpressed in 2 of 8 ovarian carcinoma cell lines and 2 of 15 primary ovarian tumors. Overexpression contributes to the malignant phenotype of a subset of human ductal pancreatic cancers. The encoded protein is a general protein kinase capable of phosphorylating several known proteins. [provided by RefSeq, Jul 2008],
Function :	catalytic activity:ATP + a protein = ADP + a phosphoprotein.,disease:Alterations of AKT2 may contribute to the pathogenesis of ovarian carcinomas.,enzyme regulation:Two specific sites, one in the kinase domain (Thr-309) and the other in the C-terminal regulatory region (Ser-474), need to be phosphorylated for its full activation.,function:General protein kinase capable of phosphorylating several known proteins.,similarity:Belongs to the protein kinase superfamily.,similarity:Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. RAC subfamily.,similarity:Contains 1 AGC-kinase C-terminal domain.,similarity:Contains 1 PH domain.,similarity:Contains 1 protein kinase domain.,subunit:Interacts (via PH domain) with MTCP1, TCL1A AND TCL1B.,tissue specificity:In all human cell types so far analyzed.,
Subcellular Location :	Cytoplasm. Nucleus. Cell membrane; Peripheral membrane protein. Early endosome . Localizes within both nucleus and cytoplasm of proliferative primary

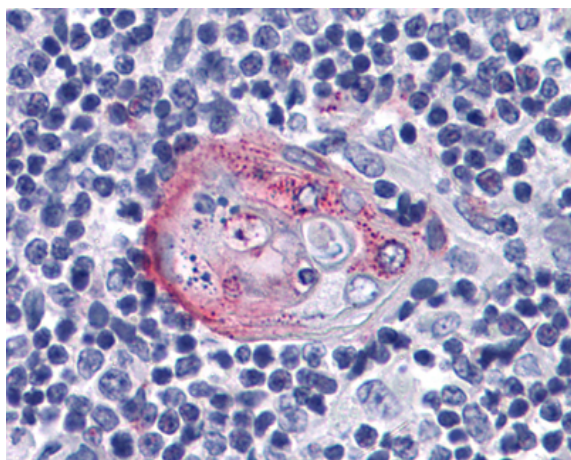
myoblasts and mostly within the nucleus of differentiated primary myoblasts. By virtue of the N-terminal PH domain, is recruited to sites of the plasma membrane containing increased PI(3,4,5)P3 or PI(3,4)P2, cell membrane targeting is also facilitated by interaction with CLIP3. Colocalizes with WDFY2 in early endosomes (By similarity). .

Expression : Expressed in all cell types so far analyzed.

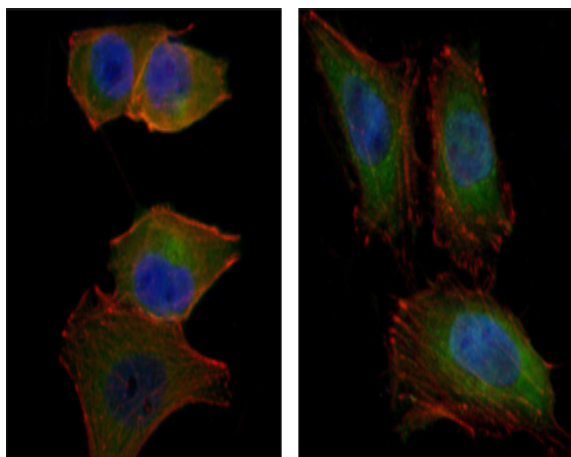
Products Images



Western Blot analysis using Akt2 Monoclonal Antibody against A431 (1), Jurkat (2), HEK293 (3), A549 (4), MCF-7 (5) and PC-12 (6) cell lysate.



Immunohistochemistry analysis of paraffin-embedded human Thymus tissues with AEC staining using Akt2 Monoclonal Antibody.



Immunofluorescence analysis of PANC-1 (left) and HeLa (right) cells using Akt2 Monoclonal Antibody (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.