



# Akt2 (phospho Ser474) Polyclonal Antibody

<b>Catalog No</b>	YP-Ab-14295
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human;Mouse;Rat
<b>Applications</b>	WB;IHC;IF;ELISA
<b>Gene Name</b>	AKT2
<b>Protein Name</b>	RAC-beta serine/threonine-protein kinase
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human Akt2 around the phosphorylation site of Ser474. AA range:432-481
<b>Specificity</b>	Phospho-Akt2 (S474) Polyclonal Antibody detects endogenous levels of Akt2 protein only when phosphorylated at S474.
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source</b>	Polyclonal, Rabbit,IgG
<b>Purification</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Dilution</b>	WB: 1/500 - 1/2000. IHC: 1/100 - 1/300. ELISA: 1/20000.. IF 1:50-200
<b>Concentration</b>	1 mg/ml
<b>Purity</b>	≥90%
<b>Storage Stability</b>	-20°C/1 year
<b>Synonyms</b>	AKT2; RAC-beta serine/threonine-protein kinase; Protein kinase Akt-2; Protein kinase B beta; PKB beta; RAC-PK-beta
<b>Observed Band</b>	56kD
<b>Cell Pathway</b>	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). .
<b>Tissue Specificity</b>	Expressed in all cell types so far analyzed.
<b>Function</b>	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.,

### 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],

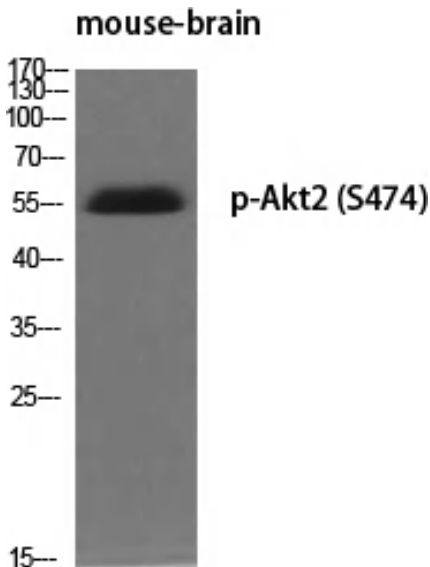
### matters needing attention

Avoid repeated freezing and thawing!

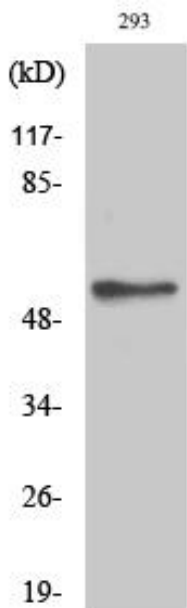
### Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

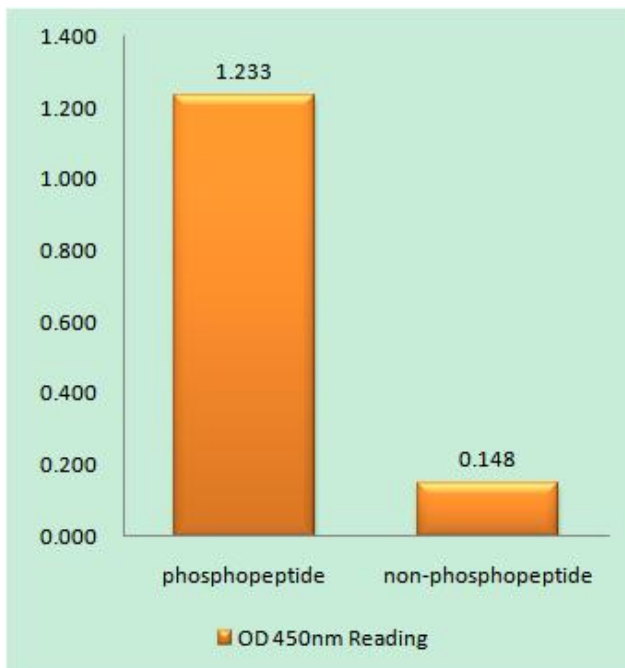
## Products Images



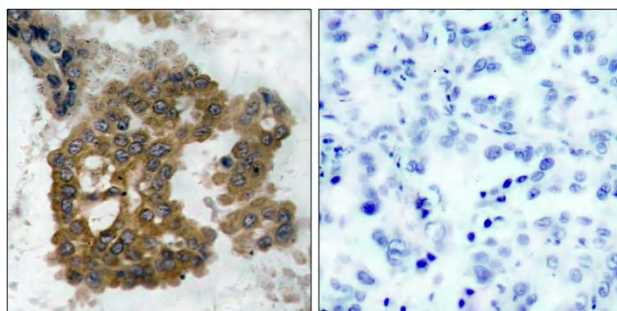
Western Blot analysis of various cells using Phospho-Akt2 (S474) Polyclonal Antibody diluted at 1:500



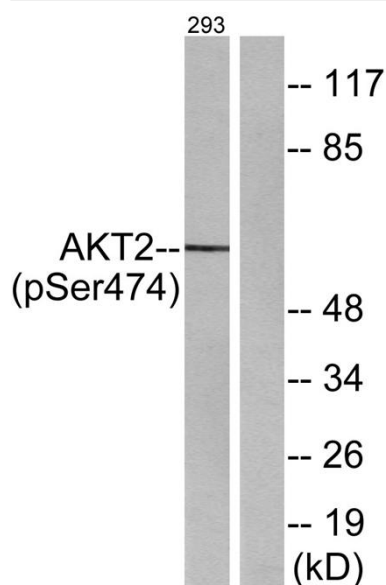
Western Blot analysis of 293 cells using Phospho-Akt2 (S474) Polyclonal Antibody diluted at 1:500



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using Akt2 (Phospho-Ser474) Antibody



Immunohistochemistry analysis of paraffin-embedded human lung carcinoma, using Akt2 (Phospho-Ser474) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from 293 cells treated with EGF 200ng/ml 30', using Akt2 (Phospho-Ser474) Antibody. The lane on the right is blocked with the phospho peptide.