



# Recombinant Rat RAC-alpha serine/threonine-protein kinase (Akt1)

<b>Product Code</b>	CSB-MP001553RA
<b>Storage</b>	Store at -20°C, for extended storage, conserve at -20°C or -80°C.
<b>Uniprot No.</b>	P47196
<b>Product Type</b>	Recombinant Protein
<b>Immunogen Species</b>	Rattus norvegicus (Rat)
<b>Purity</b>	>85% (SDS-PAGE)
<b>Sequence</b>	MNDVAIVKEG WLHKRGEYIK TWRPRYFLLK NDGTFIGYKE RPQDVEQRES PLNDFSVAQC QLMKTERPRP NTFIIRCLQW TTVIERTFHV ETPEEREWT TAIQTVADGL KRQEEETMDF RSGSPSDNSG AEEMEVALAK PKHRVTMNEF EYLKLLGKGT FGKVLVKEK ATGRYYAMKI LKKEVIVAKD EVAHTLTENR VLQNSRHPFL TALKYSFQTH DRLCFVMEYA NGGELFFHLS RERVFSEDR RFYGAEIVSA LDYLNHSEKNV VYRDLKLENL MLDKDGHKI TDFGLCKEGI KDGATMKTFC GTPEYLAPEV LEDNDYGRAV DWWGLGVVMY EMMCGRLPFY NQDHEKLFEL ILMEEIRFPR TLGPEAKSLL SGLLKKDPTQ RLGGGSEDAK EIMQHRFFAN IVWQDVYEKK LSPPFKPQVT SETDTRYFDE EFTAQMITIT PPDQDDSMC VDSERRPHFP QFSYSASGTA
<b>Source</b>	Mammalian cell
<b>Target Names</b>	Akt1
<b>Protein Names</b>	Recommended name: RAC-alpha serine/threonine-protein kinase EC= 2.7.11.1 Alternative name(s): Protein kinase B Short name= PKB Protein kinase B alpha Short name= PKB alpha RAC-PK-alpha
<b>Expression Region</b>	1-480
<b>Notes</b>	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
<b>Tag Info</b>	Tag type will be determined during the manufacturing process.
<b>Protein Length</b>	Full length protein
<b>Target Details</b>	The serine-threonine protein kinase encoded by the AKT1 gene is catalytically inactive in serum-starved primary and immortalized fibroblasts. AKT1 and the related AKT2 are activated by platelet-derived growth factor. The activation is rapid and specific, and it is abrogated by mutations in the pleckstrin homology domain of AKT1. It was shown that the activation occurs through phosphatidylinositol 3-kinase. In the developing nervous system AKT is a critical mediator of growth factor-induced neuronal survival. Survival factors can suppress apoptosis in a transcription-independent manner by activating the serine/threonine kinase AKT1, which then phosphorylates and inactivates components of the apoptotic machinery. Multiple alternatively spliced transcript variants have been found for this gene.



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**Reconstitution**

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

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**Shelf Life**

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.