

Catalog #	Aliquot Size
<b>A18-911-05</b>	<b>3 x 5 nmol</b>
<b>A18-911-20</b>	<b>3 x 20 nmol</b>
<b>A18-911-50</b>	<b>3 x 50 nmol</b>

## AKT3 siRNA Set I

siRNA duplexes targeted against three exon regions

### Catalog # A18-911

Lot # Z2013-20

### Specificity

AKT3 siRNAs are designed to specifically knock-down human AKT3 expression.

### Product Description

AKT3 siRNA is a pool of three individual synthetic siRNA duplexes designed to knock-down human AKT3 mRNA expression. Each siRNA is 19-25 bases in length. The gene accession number is [NM\\_005465](#).

### Gene Aliases

PKBG; PRKBG; STK-2; RAC-gamma; RAC-PK-gamma

### Storage and Stability

The lyophilized powder is stable for at least 4 weeks at room temperature. It is recommended that the lyophilized and resuspended siRNAs are stored at or below -20°C. After resuspension, siRNA stock solutions ≥2 μM can undergo up to 50 freeze-thaw cycles without significant degradation. For long-term storage, it is recommended that the siRNA is stored at -70°C. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

### Scientific Background

AKT 3 or Protein Kinase B  $\beta$  (PKB $\beta$ ) is a serine/threonine kinase that is a member of the AKT family. AKT 3 is activated in cells exposed to diverse stimuli such as hormones, growth factors, and extracellular matrix components (1). AKT 3 phosphorylates and regulates the function of many cellular proteins involved in processes that include cellular metabolism, survival/apoptosis, and proliferation. Recent evidence indicates that AKT 3 is frequently overexpressed in many types of human cancers including breast and prostate (2).

### References

- Coffer, P.J. et al: Protein kinase B (c-Akt): a multifunctional mediator of phosphatidylinositol 3-kinase activation. *Biochem J.* 1998 Oct 1; 335 (Pt 1): 1-13.
- Anderson, K.E. et al: Translocation of PDK-1 to the plasma membrane is important in allowing PDK-1 to activate protein kinase B. *Curr Biol.* 1998 Jun 4;8(12): 684-91.

### Formulation

The siRNAs are supplied as a lyophilized powder and shipped at room temperature.

### Reconstitution Protocol

Briefly centrifuge the tubes (maximum RCF 4,000g) to collect lyophilized siRNA at the bottom of the tube. Resuspend the siRNA in 50 μl of DEPC-treated water (supplied by researcher), which results in a 1x stock solution (10 μM). Gently pipet the solution 3-5 times to mix and avoid the introduction of bubbles. Optional: aliquot 1x stock solutions for storage.

### Related Products

Product Name	Catalog Number
AKT3, Active	A18-10G
AKT3 Mutant (G171R), Active	A18-12BG
AKT1, Active	A16-10G
AKT1 Mutant (E17K), Active	A16-12G
AKT2, Active	A17-10H
AKT2, Active	A17-10G
AKT2 Mutant (E17K), Active	A17-12G
AKT2 Mutant (R274H), Active	A17-12BG
AKT3, Unactive	A18-14G
AKT1, Unactive	A16-14G

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Catalog Number	A18-911
Specific Lot Number	Z2013-20
Packaging Specifications	2.5 nmol/tube for 3 x 5 nmol
Format	Lyophilized powder
Stability	1yr at -70°C from date of shipment
Storage & Shipping	The lyophilized powder is stable for at least 4 weeks at room temperature. It is recommended that the lyophilized and resuspended siRNAs are stored at or below -20°C. After resuspension, siRNA stock solutions ≥2 μM can undergo up to 50 freeze-thaw cycles without significant degradation. For long-term storage, it is recommended that the siRNA is stored at -70°C. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

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