

Catalog #	Aliquot Size
<b>P28-911-05</b>	<b>3 x 5 nmol</b>
<b>P28-911-20</b>	<b>3 x 20 nmol</b>
<b>P28-911-50</b>	<b>3 x 50 nmol</b>

## PI3K (p110 $\beta$ ) siRNA Set I

siRNA duplexes targeted against three exon regions

### Catalog # P28-911

Lot # Z2194-9

### Specificity

PI3K (p110 $\beta$ ) siRNAs are designed to specifically knock-down human PI3K (p110 $\beta$ ) expression.

### Product Description

PI3K (p110 $\beta$ ) siRNA is a pool of three individual synthetic siRNA duplexes designed to knock-down human PI3K (p110 $\beta$ ) mRNA expression. Each siRNA is 19-25 bases in length. The gene accession number is [NM\\_006219](#).

### Gene Aliases

PIK3CB, PI3K, PIK3C1, PI3Kbeta, MGC133043, p110-BETA, DKFzp779K1237

### 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  $\geq 2$   $\mu$ M 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

The PI3K comprises of a 110 kDa catalytic subunit and a 85 kDa regulatory subunit. A number of isoforms of the 110 kDa catalytic subunit and the 85 kDa regulatory subunit exist in cells. The p110 $\beta$  catalytic subunit (PIK3CB) plays a role in regulating the formation and stability of alpha-2B-beta-3 integrin adhesion bonds, which are necessary for shear force-induced platelet activation (1). In animal model of prostate tumor formation induced by the tumor suppressor PTEN loss, ablation of p110 $\beta$  impedes tumorigenesis with a concomitant diminution of AKT phosphorylation (2).

### References

1. Jackson, S. P. et al: PI 3-kinase p110-beta: a new target for anti-thrombotic therapy. *Nature Med.* 11: 507-514, 2005.
2. Jia, S. et al: Essential roles of PI(3)K-p110-beta in cell growth, metabolism and tumorigenesis. *Nature* 454: 776-779, 2008.

### 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  $\mu$ l of DEPC-treated water (supplied by researcher), which results in a 1x stock solution (10  $\mu$ M). 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
PI3K (p110 alpha (E545K)/p85 alpha) Mutant, Active	P27-15H
PI3K (p110 alpha/p55 gamma), Active	P27-10CH
PI3K (p110 alpha/p85 alpha), Active	P27-18H
PI3K (p110 alpha/p85 alpha), Active	P27-10H
PI3K (p110 beta/p85 alpha), Active	P28-10H
PI3K (p110 beta/p85 beta), Active	P28-10BH

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Catalog #	P28-911
Lot #	Z2194-9
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 $\geq 2$ $\mu$ M 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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