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## Technical Data Sheet

**For research use only**  
Not intended or approved for  
diagnostic or therapeutic use.

**Product Name:**  
Shuttle PIP™ Kits  
Intracellular delivery of phosphoinositides

**Product Number:** P-9035

### **Kit Contents:**

#### *Phosphoinositides*

<u>Catalog #</u>	<u>Description</u>	<u>Molecular Weight</u>	<u>Quantity</u>
P-3516	PtdIns(3,5)P <sub>2</sub> diC <sub>16</sub>	1,080.90	100 µg
C-35N16	PtdIns(3,5)P <sub>2</sub> C <sub>6</sub> -NBD*,C <sub>16</sub>	1,231.90	25 µg

#### *Carriers*

P-9C1	Neomycin Sulfate	908.9	50 nmoles
P-9C1R	Neomycin-TMR**	1,325.9	20 µL of 1 mM
P-9C2	Histone H1	~26,230	50 nmoles
P-9C2R	Histone H1-TMR**	~26,730	10 nmoles
P-9C3	Carrier 3	1,551	50 nmoles

### **Storage and Handling:**

Certain kit components are moisture and light sensitive. Store unopened kit for up to one year frozen at -20°C protected from moisture and light. Reconstitute phosphoinositides and carriers in aqueous buffers or media, and store at 4°C for up to 3 months. Multiple freeze thawing is not recommended. Note: Vortex mixing, brief bath sonication, and addition of small amounts of methanol, ethanol, or DMSO may facilitate complete dissolution of phosphoinositides. *Phosphate buffers are not recommended and may alter complex formation between carriers and phosphoinositides.* We do not recommend storing carriers and PIPs together as complexes. Carrier P-9C1R is shipped frozen in solution. On first use, we recommend sub-aliquoting this carrier into convenient sizes and storing at -20°C until the day of use. Working stocks can be stored at 4°C for up to 3 months. Again, multiple freezing and thawing is not recommended.

### **References:**

- Ozaki, S.; DeWald, D. B.; Shope, J. C.; Chen, J.; Prestwich, G. D. (2000) Intracellular delivery of phosphoinositides and inositol phosphates using polyamine carriers. *Proc Natl Acad Sci U S A* **97**(21)11286-11291.
- Scheid, M.P., M. Huber, et. al. (2002). Phosphatidylinositol (3,4,5)P<sub>3</sub> is essential but not sufficient for protein kinase B (PKB) activation; Phosphatidylinositol (3,4)P<sub>2</sub> is required for PKB phosphorylation at Ser-473: studies using cells from SH2-containing inositol-5-phosphatase knockout mice. *J Biol Chem* **277**(11): 9027-35.
- Weiner, O.D., Neilsen, P.O., Prestwich, G.D., Kirschner, M.W., Cantley, L.C. and Bourne, H.R. (2002). A PtdInsP<sub>3</sub>- and Rho GTPase-mediated positive feedback loop regulates neutrophil polarity. *Nat Cell Biol* **4** 509-512.
- Larsen, M.; M.P. Hoffman, T. Sakai, J.C. Neibaur, J.M. Mitchell and K.M. Yamada, (2003) Role of PI 3-kinase and PIP<sub>3</sub> in submandibular gland branching morphogenesis, *Dev Biol*, **255**, 178-91.

\*NBD has maximal excitation at 465 nm and maximal emission at 535 nm

\*\*TMR = Tetramethylrhodamine (maximal excitation at 555 nm, maximal emission 580 nm)

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