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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-9045

Kit Contents:

Phosphoinositides

Catalog #	Description	Molecular Weight	Quantity
P-4516	PtdIns(4,5)P ₂ diC ₁₆	1,080.90	100 µg
C-45N16	PtdIns(4,5)P ₂ C ₆ -NBD*,C ₁₆	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)P₃ is essential but not sufficient for protein kinase B (PKB) activation; Phosphatidylinositol (3,4)P₂ 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 PtdInsP₃- 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 PIP3 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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