



Echelon Biosciences Inc.
675 Arapeen Drive, Suite 302
Salt Lake City, UT 84108 Telephone
866-588-0455
Fax 801-588-0497
echelon@echelon-inc.com
www.echelon-inc.com

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-9034

Kit Contents:

Phosphoinositides

Catalog #	Description	Molecular Weight	Quantity
P-3416	PtdIns(3,4)P ₂ diC ₁₆	1,080.90	100 µg
C-34N16	PtdIns(3,4)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:

1. 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.
2. 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.
3. 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.
4. 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)

Echelon Biosciences products are sold for research and development purposes only and are not for diagnostic use or to be incorporated into products for resale without written permission from Echelon Biosciences. Materials in this publication, as well as applications and methods and use, may be covered by one or more U.S. or foreign patents or patents pending. We welcome inquiries about licensing the use of our trademarks and technologies at busdev@echelon-inc.com.