

## Fluorescent Phospholipids

### Introduction

Phospholipids are the primary structural constituents of biological membranes. In addition to this structural role, phospholipids also play important roles as mediators in cellular signaling processes. AAT Bioquest offers a group of fluorescent phospholipid analogs incorporating the intensely fluorescent and photostable fluorophores that cover the full visible fluorescence spectrum.

### Storage and Handling

Fluorescent phospholipid analogs in solid form should be stored frozen at  $\leq -20^{\circ}\text{C}$ , desiccated and protected from light. When properly stored, these products are stable for at least one year. The most suitable solvent for preparing stock solutions is generally chloroform.

### Physical and Spectral Properties

| Cat#  | Product Name     | Unit Size | Molecular Weight | Ex (nm) | Em (nm) |
|-------|------------------|-----------|------------------|---------|---------|
| 23300 | Texas Red-DHPE   | 1 mg      | 1381.84          | 595     | 615     |
| 23301 | TRITC-DHPE       | 1 mg      | 1236.69          | 543     | 571     |
| 23303 | Forte Blue DHPE  | 1 mg      | 944.13           | 365     | 460     |
| 23304 | Fluorescein DHPE | 5 mg      | 1182.54          | 496     | 519     |

### Application Notes

Liposomes are commonly employed as carriers for labeling live cells with fluorescent phospholipids. Liposomes may be prepared by a variety of techniques. A particularly convenient method involves simply injecting a concentrated ethanolic phospholipid solution into aqueous buffer. To prepare stock solutions of phospholipids that have been dissolved in water-immiscible solvents, a suspension of liposomes can be obtained by evaporating the organic solvent, followed by hydration and sonication.