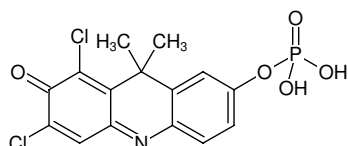




## DDAO Phosphate

9H-(1,3-Dichloro-9,9-dimethylacridin-2-one-7-yl) phosphate, Bis(triethylammonium) salt

| Cat. No.  | Amount   |
|-----------|----------|
| APC-001-1 | 1 mg     |
| APC-001-5 | 5 x 1 mg |



Structural formula of DDAO Phosphate

### For research use only!

**Shipping:** shipped at ambient temperature

**Storage Conditions:** store at -20 °C

**Additional Storage Conditions:** store dark

**Shelf Life:** 12 months after date of delivery

**Molecular Formula:** C<sub>15</sub>H<sub>12</sub>Cl<sub>2</sub>NO<sub>5</sub>P (free acid)

**Molecular Weight:** 388.14 g/mol (free acid)

**Exact Mass:** 386.98 g/mol (free acid)

**CAS#:** 500883-59-0

**Purity:** > 95 % (HPLC)

**Form:** solid

**Spectroscopic Properties:** λ<sub>exc</sub> 477 nm, λ<sub>em</sub> 628 nm,  
ε 26.0 L mmol<sup>-1</sup> cm<sup>-1</sup> (50 mM Potassium Phosphate pH 7.0)

### Description:

DDAO-phosphate is a long-wavelength, phosphatase substrate for both solution-based assays<sup>[1,2]</sup> and the amplified detection of specific targets on blots<sup>[3,4]</sup>. Hydrolysis of the phosphate bond yields a brightly red-fluorescent product with absorption/emission maxima of 646/659 nm that is efficiently excited by the 633 nm spectral line of the He-Ne laser. The shift of emission maxima between DDAO-phosphate and the dephosphorylated product is larger than 200 nm and permits both species to be easily distinguished. DDAO phosphate has good water solubility, a low K<sub>M</sub> and a high turnover rate.

### Selected References:

- [1] Leira *et al.* (2000) Characterization of 9H-(1,3-dichloro-9,9-dimethylacridin-2-one-7-yl)-phosphate (DDAO) as substrate of PP-2A in a fluorimetric micro-plate assay for diarrhetic shellfish toxins (DSP). *Toxicon* **38**:1833.
- [2] Stratis-Cullum *et al.* (2003) A miniature biochip system for detection of aerosolized *Bacillus globigii* spores. *Anal. Chem.* **75**:275.
- [3] Pretty *et al.* (2001) Green/red dual fluorescence detection of total protein and alkaline phosphate-conjugated probes on blotting membranes. *Electrophoresis* **22**:896.
- [4] Kurien *et al.* (2015) Other notable methods of membrane protein detection: A brief review. *Detection of Blotted Proteins, Springer Chapter 36*:357.