

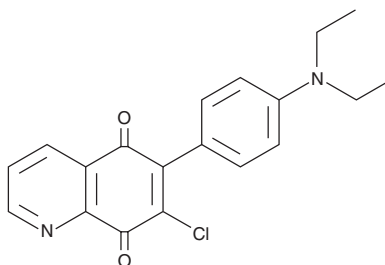
# PRODUCT INFORMATION



## EA4

Item No. 10111

**CAS Registry No.:** 389614-94-2  
**Formal Name:** 7-chloro-6-[4-(diethylamino)phenyl]-5,8-quinolinedione  
**MF:** C<sub>19</sub>H<sub>17</sub>ClN<sub>2</sub>O<sub>2</sub>  
**FW:** 340.8  
**Purity:** ≥95%  
**Stability:** ≥2 years at -20°C  
**Supplied as:** A crystalline solid  
**UV/Vis.:** λ<sub>max</sub>: 202, 242, 280, 600 nm



### Laboratory Procedures

For long term storage, we suggest that EA4 be stored as supplied at -20°C. It should be stable for at least two years.

EA4 is supplied as a crystalline solid. A stock solution may be made by dissolving the EA4 in an organic solvent purged with an inert gas. EA4 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of EA4 in ethanol is approximately 1 mg/ml and 20 mg/ml in DMSO and DMF.

EA4 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, EA4 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. EA4 has a solubility of 0.3 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

rPLA<sub>2</sub> is a calcium-dependent cytosolic phospholipase A<sub>2</sub> (cPLA<sub>2</sub>) initially isolated and characterized from bovine and human red blood cells (RBCs).<sup>1</sup> It has a molecular mass of 42 kDa and biochemical properties similar to cPLA<sub>2</sub> Type IV. EA4 is a quinone derivative that inhibits rPLA<sub>2</sub> with a K<sub>i</sub> of 130 μM. It inhibits the ionophore-induced arachidonic acid release from human and bovine RBCs, indicating that rPLA<sub>2</sub> is responsible for the Ca<sup>2+</sup>-dependent release of arachidonic acid from mammalian RBCs.<sup>1</sup> EA4 causes significant time- and concentration-dependent induction of cytochrome P450 1A1 (CYP1A1) mRNA and protein in murine hepatoma Hepa-1c1c7 cells.<sup>2</sup> EA4 also modulates CYP1A1 and CYP1B1 expression in other cell lines such as MCF-7, HepG2, and HL-60.<sup>2</sup>

### References

1. Shin, H.S., Chin, M.-R., Kim, J.S., *et al.* Purification and characterization of a cytosolic, 42-kDa and Ca<sup>2+</sup>-dependent phospholipase A<sub>2</sub> from bovine red blood cells. *J. Biol. Chem.* **277**, 21086-21094 (2002).
2. Chun, Y.J., Lee, B.Y., Yang, S.A., *et al.* Induction of cytochrome P450 1A1 gene expression by a vitamin K<sub>3</sub> analog in mouse hepatoma Hepa-1c1c7 cells. *Mol. Cells* **12**, 190-196 (2001).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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