**PRODUCT INFORMATION**

**Quinacrine analog 34**  
*Item No. 17733*

**CAS Registry No.:** 1411646-44-0  
**Formal Name:** 6-chloro-1,2,3,4-tetrahydro-N-[2-(4-methyl-1-piperazinyl)ethyl]-9-acridinamine  
**MF:** C_{20}H_{27}ClN_{4}  
**FW:** 358.9  
**Purity:** ≥98%  
**Stability:** ≥2 years at -20°C  
**Supplied as:** A crystalline solid  
**UV/Vis.:** \( \lambda_{\text{max}}: 226, 252, 330 \text{ nm} \)

**Laboratory Procedures**

For long term storage, we suggest that quinacrine analog 34 be stored as supplied at -20°C. It should be stable for at least two years.

Quinacrine analog 34 is supplied as a crystalline solid. A stock solution may be made by dissolving the quinacrine analog 34 in the solvent of choice. Quinacrine analog 34 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of quinacrine analog 34 in ethanol is approximately 5 mg/ml and approximately 10 mg/ml in DMSO and DMF.

Quinacrine analog 34 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, quinacrine analog 34 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Quinacrine analog 34 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

**Description**

Quinacrine (Item No. 15041) is a compound with multiple actions that is commonly used as an anti-protozoal agent. It has also been shown to be a highly potent autophagy inhibitor, although the dose required to achieve this effect is considerably cytotoxic (LD_{50} = 2.5 \mu M). Quinacrine analog 34 is a derivative of quinacrine that was designed with an improved cell viability profile (LD_{50} = 27 \mu M) to inhibit autophagy. At a minimum concentration of 0.5 \mu M, this compound has been shown to increase the protein levels of the autophagy biomarker LC3-II and to induce lysosome deacidification.

**Reference**