**PRODUCT INFORMATION**

**Gallocyanine**  
*Item No. 20657*

**CAS Registry No.:** 1562-85-2  
**Formal Name:** 1-carboxy-7-(dimethylamino)-3,4-dihydroxyphenoxazin-5-ium, monochloride  
**Synonyms:** IIC3, Alizarine Navy Blue, Anthracene Blue SWGG, Brilliant Chrome Blue P, C.I. 51030, Fast Violet, Mordant Blue 10  
**MF:** C_{15}H_{13}N_{2}O_{5} • Cl  
**FW:** 336.7  
**Purity:** ≥95%  
**UV/Vis.:** \( \lambda_{\text{max}}: 314, 399, 600, 607 \text{ nm} \)  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly

**Laboratory Procedures**

Gallocyanine is supplied as a crystalline solid. Aqueous solutions of gallocyanine can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of gallocyanine in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

**Description**

Gallocyanine is a small molecule blue dye used to stain nuclei. It is known to inhibit Dickkopf-1 (Dkk1), an antagonist of the Wnt pathway. Gallocyanine can disrupt the interaction of Dkk1 with its receptor LRP5/6 (\( IC_{50} = 3 \mu M \)), thereby activating Wnt/β-catenin signaling.\(^1\) Modulation of the Dkk1-LRP5/6 interaction via gallocyanine has been shown to inhibit prostaglandin J\(_{2}\)-induced tau phosphorylation at serine\(^{396}\) in primary cortical neurons *in vitro*.\(^1\)

**Reference**