

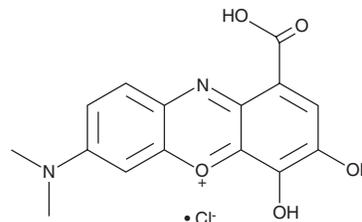
# PRODUCT INFORMATION



## Gallocyanine

Item No. 20657

**CAS Registry No.:** 1562-85-2  
**Formal Name:** 1-carboxy-7-(dimethylamino)-3,4-dihydroxy-phenoxazin-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<sub>15</sub>H<sub>13</sub>N<sub>2</sub>O<sub>5</sub> • Cl  
**FW:** 336.7  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 314, 399, 600, 607 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### 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<sub>50</sub> = 3 μM), thereby activating Wnt/β-catenin signaling.<sup>1</sup> Modulation of the Dkk1-LRP5/6 interaction via gallocyanine has been shown to inhibit prostaglandin J<sub>2</sub>-induced tau phosphorylation at serine<sup>396</sup> in primary cortical neurons *in vitro*.<sup>1</sup>

### Reference

1. Mpousis, S., Thysiadis, S., Avramidis, N., *et al.* Synthesis and evaluation of gallocyanine dyes as potential agents for the treatment of Alzheimer's disease and related neurodegenerative tauopathies. *Eur. J. Med. Chem.* **108**, 28-38 (2016).

**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.

**WARRANTY AND LIMITATION OF REMEDY**  
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/01/2022

### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM