

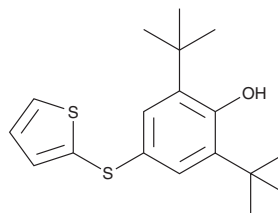
# PRODUCT INFORMATION



## RC363

Item No. 31407

**CAS Registry No.:** 2584411-86-7  
**Formal Name:** 2,6-bis(1,1-dimethylethyl)-4-(2-thienylthio)-phenol  
**MF:** C<sub>18</sub>H<sub>24</sub>OS<sub>2</sub>  
**FW:** 320.5  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 249 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥2 years



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

### Laboratory Procedures

RC363 is supplied as a crystalline solid. A stock solution may be made by dissolving the RC363 in the solvent of choice, which should be purged with an inert gas. RC363 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of RC363 in these solvents is approximately 30 mg/ml.

### Description

RC363 is an inhibitor of ferroptosis and a derivative of the antioxidant and hypocholesterolemic agent probucol (Item No. 15043).<sup>1</sup> It reduces 2,2-diphenyl-1-picrylhydrazyl (DPPH; Item No. 14805) radicals by approximately 40% in a cell-free assay when used at a concentration of 25 μM. RC363 prevents glutamate-induced toxicity in HT22 cultured hippocampal cells (IC<sub>50</sub> = 234.5 nM) but does not reduce oxidant levels in these cells. It increases the levels of glutathione peroxidase 1 (GPX1) and the activity of GPX in glutamate-challenged HT22 cells when used at a concentration of 3 μM. RC363 inhibits ferroptosis induced by the GPX4 inhibitor RSL3 in HT22 cells (IC<sub>50</sub> = 173.6 nM).

### Reference

1. Bueno, D.C., Canto, R.F.S., de Souza, V., *et al.* New probucol analogues inhibit ferroptosis, improve mitochondrial parameters, and induce glutathione peroxidase in HT22 cells. *Mol. Neurobiol.* **57**(8), 3273-3290 (2020).

**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**  
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### 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