

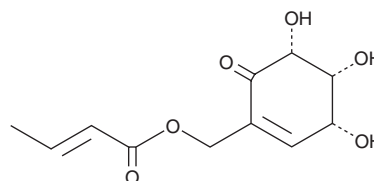
# PRODUCT INFORMATION



## COTC

Item No. 36408

**CAS Registry No.:** 57449-30-6  
**Formal Name:** 2-butenic acid, [(3R,4R,5R)-3,4,5-trihydroxy-6-oxo-1-cyclohexen-1-yl] methyl ester  
**Synonym:** 2-Crotonyloxymethyl-(4R,5R,6R)-4,5,6-trihydroxycyclohex-2-enone  
**MF:** C<sub>11</sub>H<sub>14</sub>O<sub>6</sub>  
**FW:** 242.2  
**Purity:** ≥90%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years  
**Item Origin:** Bacterium/*Streptomyces griseosporus*



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

### Laboratory Procedures

COTC is supplied as a solid. A stock solution may be made by dissolving the COTC in the solvent of choice. COTC is soluble in organic solvents such as methanol, DMSO, which should be purged with an inert gas. It is also soluble in water. We do not recommend storing the aqueous solution for more than one day.

### Description

COTC is a bacterial metabolite that has been found in *S. griseosporus* and has anticancer activity.<sup>1</sup> It inhibits glyoxalase in the presence of glutathione (GSH) in a concentration- and time-dependent manner. COTC inhibits the proliferation of HeLa cells (IC<sub>50</sub> = 18 µg/ml), as well as reduces tumor growth and improves survival in an Ehrlich murine spontaneous adenocarcinoma model.

### Reference

1. Takeuchi, T., Chimura, H., Hamada, M., *et al.* A glyoxalase I inhibitor of a new structural type produced by *Streptomyces*. *J. Antibiot. (Tokyo)* **28**(1), 737-742 (1975).

#### 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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