# PRODUCT INFORMATION



# Capsorubin

Item No. 35115

CAS Registry No.: 470-38-2

Formal Name: (3S,3'S,5R,5'R)-3,3'-dihydroxy-

к,к-carotene-6,6'-dione

MF:  $C_{40}H_{56}O_{4}$ FW: 600.9 **Purity:** ≥95% Supplied as: A solid -20°C Storage: Stability: ≥4 years Item Origin: Synthetic

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

## **Laboratory Procedures**

Capsorubin is supplied as a solid. A stock solution may be made by dissolving the capsorubin in the solvent of choice, which should be purged with an inert gas. Capsorubin is soluble in DMSO and dimethyl formamide.

#### Description

Capsorubin is a carotenoid that has been found in C. annuum and has diverse biological activities. 1-3 It inhibits lipid peroxidation induced by 2,2'-azobis(2,4-dimethyl valeronitrile) (AMVN) in vitro when used at a concentration of 167  $\mu$ M.<sup>1</sup> Capsorubin (1  $\mu$ M) decreases UVB-induced formation of DNA strand breaks and apoptosis in isolated human dermal fibroblasts.<sup>2</sup> It also inhibits Epstein-Barr virus early antigen (EBV-EA) activation induced by phorbol 12-myristate 13-acetate (TPA; Item No. 10008014), a marker of tumor formation, in Raji cells.

#### References

- 1. Maoka, T., Goto, Y., Isobe, K., et al. Antioxidative activity of capsorubin and related compounds from paprika (Capsicum annuum). J. Oleo Sci. 50(8), 663-665 (2001).
- 2. Fernández-García, E., Carvajal-Lérida, I., and Pérez-Gálvez, A. Carotenoids exclusively synthesized in red pepper (capsanthin and capsorubin) protect human dermal fibroblasts against UVB induced DNA damage. Photochem. Photobiol. Sci. 15(9), 1204-1211 (2016).
- 3. Maoka, T., Mochida, K., Kozuka, M., et al. Cancer chemopreventive activity of carotenoids in the fruits of red paprika Capsicum annuum L. Cancer Lett. 172(2), 103-109 (2001).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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.

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