

## Lycopene

## Chemical Properties

CAS No. : 502-65-8

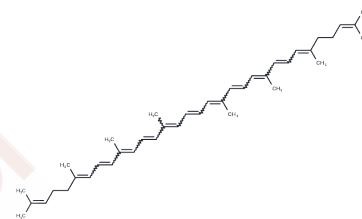
Formula: C<sub>40</sub>H<sub>56</sub>

Molecular Weight: 536.87

Storage: Keep away from direct sunlight, Store at low temperature

Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Lycopene ( $\psi,\psi$ -Carotene) is a linear, unsaturated hydrocarbon carotenoid, the major red pigment in fruits such as tomatoes, pink grapefruit, apricots, red oranges, watermelon, rosehips, and guava. As a class, carotenoids are pigment compounds found in photosynthetic organisms (plants, algae, and some types of fungus), and are chemically characterized by a large polyene chain containing 35-40 carbon atoms; some carotenoid polyene chains are terminated by two 6-carbon rings. In animals, carotenoids such as lycopene may possess antioxidant properties which may retard aging and many degenerative diseases. As an essential nutrient, lycopene is required in the animal diet.
Targets(IC50)	Reactive Oxygen Species, Endogenous Metabolite, ROS

## Solubility Information

Solubility	DMSO: 3.33 mg/mL (6.2 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	1.8626 mL	9.3132 mL	18.6265 mL
5 mM	0.3725 mL	1.8626 mL	3.7253 mL
10 mM	0.1863 mL	0.9313 mL	1.8626 mL
50 mM	0.0373 mL	0.1863 mL	0.3725 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

- Abass MA, et al. Lycopene ameliorates atrazine-induced oxidative damage in adrenal cortex of male rats by activation of the Nrf2/HO-1 pathway. *Environ Sci Pollut Res Int.* 2016 Aug;23(15):15262-74.
- Assar EA, et al. Lycopene acts through inhibition of I $\kappa$ B kinase to suppress NF- $\kappa$ B signaling in human prostate and breast cancer cells. *Tumour Biol.* 2016 Jul;37(7):9375-85.
- Bandeira AC, et al. Lycopene inhibits reactive oxygen species production in SK-Hep-1 cells and attenuates acetaminophen-induced liver injury in C57BL/6 mice. *Chem Biol Interact.* 2017 Feb 1;263:7-17.
- Müller L, et al. Lycopene and Its Antioxidant Role in the Prevention of Cardiovascular Diseases-A Critical Review. *Crit Rev Food Sci Nutr.* 2016 Aug 17;56(11):1868-79.
- Tapiero H, et al. The role of carotenoids in the prevention of human pathologies. *Biomed Pharmacother.* 2004 Mar; 58(2):100-10.

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