

## Lycopene Datasheet

4<sup>th</sup> Edition (Revised in July, 2016)

### [ Product Information ]

**Name:** Lycopene

**Catalog No.:** CFN98588

**Cas No.:** 502-65-8

**Purity:** > 98%

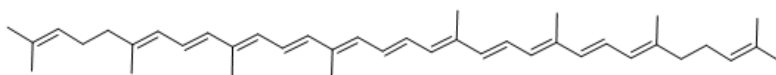
**M.F:** C<sub>40</sub>H<sub>56</sub>

**M.W:** 536.87

**Physical Description:** Powder

**Synonyms:**

4,4-Carotene;2,6,10,14,19,23,27,31-Octamethyl-dotriaconta-2,6,8,10,12,14,16,18,20,22,  
24,26,30-tridecaene;PSI,PSI-Carotene;Y,Y-Carotene.



### [ Intended Use ]

1. Reference standards;
2. Pharmacological research;
3. Food research;
4. Cosmetic research;
5. Synthetic precursor compounds;
6. Intermediates & Fine Chemicals;
7. Others.

### [ Source ]

The fruits of *Solanum lycopersicum*.

### **[ Biological Activity or Inhibitors ]**

Lycopene is the pigment principally responsible for the characteristic deep-red color of ripe tomato fruits and tomato products, is a natural antioxidant; an industrial scale, environmentally friendly lycopene extraction and purification procedure with minimal loss of bioactivities is highly desirable for the foods, feed, cosmetic, and pharmaceutical industries, high-quality lycopene products that meet food safety regulations will offer potential benefits to the food industry.<sup>[1]</sup>

Lycopene is the most efficient biological carotenoid singlet oxygen quencher.<sup>[2]</sup>

Lycopene is a more potent inhibitor of human cancer cell proliferation than either alpha-carotene or beta-carotene, dietary consumption of the carotenoid lycopene (mostly from tomato products) has been associated with a lower risk of prostate cancer. <sup>[3,4]</sup>

Lycopene is an antioxidant scavenger, hypolipemic agent, inhibitor of pro-inflammatory and pro-thrombotic factors, thus potentially of benefit in cardiovascular disease (CVD), supplementation of low doses of lycopene has been already suggested as a preventive measure for contrasting and ameliorating many aspects of CVD.<sup>[5]</sup>

### **[ Solvent ]**

Chloroform, Dichloromethane, Ethyl Acetate, DMSO, Acetone, etc.

### **[ HPLC Method ]<sup>[6]</sup>**

Mobile phase: Methanol -Tetra Hydro Furan- H<sub>2</sub>O = 66:30:4 ;

Flow rate: 1.5 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 472 nm.

### **[ Storage ]**

2-8°C, Protected from air and light, refrigerate or freeze.

## **[ References ]**

- [1] Shi J, Le M M. *Crit. Rev. Biotechnol.*, 2000, 20(4):293-334.
- [2] Di M P, Kaiser S, Sies H. *Arch. Biochem. Biophys.*, 1989, 274(2):532-8.
- [3] Gann PH, Ma J, Giovannucci E *et al. Cancer Res.*, 1999, 59(6):1225-30.
- [4] Levy J, Bosin E, Feldman B, *et al. Nutr. Cancer*, 1995, 24(3):257-66.
- [5] Mordente A, Guantario B, Meucci E, *et al. Curr. Med. Chem.*, 2011, 18(8):1146-63.
- [6] Nangude S, Vite M. *J. Pharm. Sci. Biosci. Res.*, 2013, 5(1):180.

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