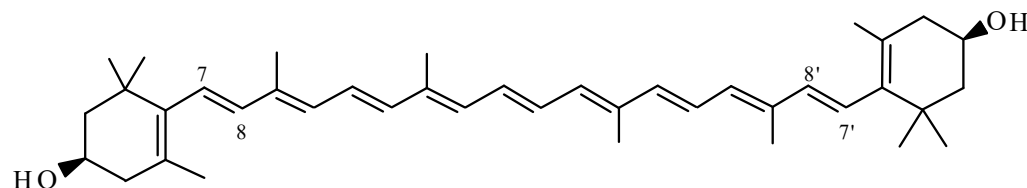




>>Entry Name: Zeaxanthin

ENTRY UNDER REVIEW

Synonym(s): β,β -Carotene-3,3'-diol. Anchovixanthin. Zeaxanthol



CAS Registry Number: 144-68-3

Related CAS Registry Numbers(s): 7756-97-0

Molecular Formula: $C_{40}H_{56}O_2$

Molecular Weight: 568.881

Accurate Mass: 568.42803

Percentage Composition: C 84.45%; H 9.92%; O 5.62%

Biological Source: Constit. of crustaceans, fish, barley, tomatoes, paprika pods, hen egg yolk and fruit

Physical Description: Yellow cryst. + $\frac{1}{2}$ MeOH (MeOH/ C_6H_6)

Melting Point: Mp 215.5°

Optical Rotation: $[\alpha]_{H_g} -44$ ($CHCl_3$)

Other Data: *Meso*- and enantiomeric zeaxanthins are descr. by Maoka *et al* from various sources

Sigma: Z3375

>>Derivative: 3-*O*-[11-Methyldodecanoyl-($\rightarrow$ 6)- β -D-glucopyranoside]

Synonym(s): Thermozeaxanthin 13

CAS Registry Number: 165525-68-8

Molecular Formula: $C_{59}H_{90}O_8$

Molecular Weight: 927.355

Accurate Mass: 926.66357

Percentage Composition: C 76.42%; H 9.78%; O 13.80%

Biological Source: Constit. of the thermophilic bacterium *Thermus thermophilus*

>>Derivative: 3-*O*-[13-Methyltetradecanoyl-($\rightarrow$ 6)- β -D-glucopyranoside]

Synonym(s): Thermozeaxanthin 15

CAS Registry Number: 165525-69-9

Molecular Formula: $C_{61}H_{94}O_8$

Molecular Weight: 955.409

Accurate Mass: 954.69487

Percentage Composition: C 76.69%; H 9.92%; O 13.40%

Biological Source: Constit. of the thermophilic bacterium *Thermus thermophilus*

>>Derivative: 3-*O*-[15-Methylhexadecanoyl-($\rightarrow$ 6)- β -D-glucopyranoside]

Synonym(s): Thermozeaxanthin 17

CAS Registry Number: 165525-70-2

Molecular Formula: $C_{63}H_{98}O_8$

Molecular Weight: 983.462

Accurate Mass: 982.72617

Percentage Composition: C 76.94%; H 10.04%; O 13.01%

Biological Source: Constit. of *Thermus thermophilus*

>>Derivative: 3-*O*- α -L-Rhamnopyranoside

Molecular Formula: $C_{46}H_{66}O_6$

Molecular Weight: 715.024

Accurate Mass: 714.48594

Percentage Composition: C 77.27%; H 9.30%; O 13.43%

Biological Source: Constit. of *Sulfolobus shibatae*

UV: [neutral] λ_{max} 450 (); 478 () (None reported)