

Product Data Sheet

Product Name: 11-cis Retinal

Cat. No.: GC18798

Chemical Properties

Cas. No. 564-87-4

Chemical Name 11-cis-retinal

SMILES CC1=C(/C=C/C(C)=C/C=C\C(C)=C\C([H])=O)C(C)(C)CCC1

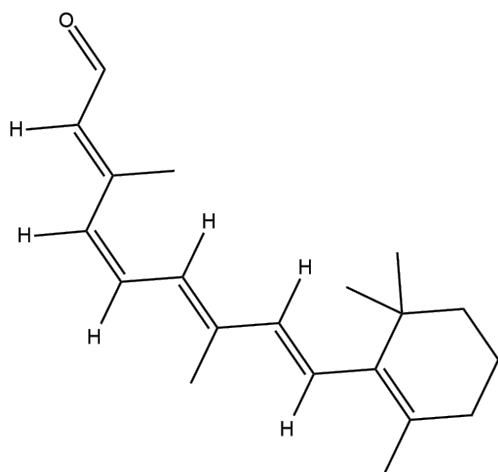
Formula $C_{20}H_{28}O$ M.Wt 284.4

Solubility Slightly Soluble in Chloroform, Methanol Storage Store at -80°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Background

11-cis Retinal is a chromophore that binds to opsin in the mammalian visual system as an inverse agonist forming the inactive conformation of rhodopsin. When 11-cis retinal absorbs a photon of light, it isomerizes to form all-trans retinal beginning the phototransduction cycle, which is the basis for mammalian vision. A G121L mutation in opsin allows 11-cis retinal to bind as a partial agonist and

Caution: Product has not been fully validated for medical applications. For research use only.

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activate rhodopsin in the absence of light. In a moth model of carotenoid deficiency-induced low visual sensitivity, 11-cis retinal application to compound eyes restored visual sensitivity almost completely.

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