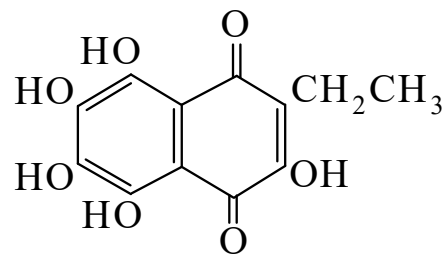




>>Entry Name: 2-Ethyl-3,5,6,7,8-pentahydroxy-1,4-naphthoquinone

Synonym(s): 2-Ethyl-3,5,6,7,8-pentahydroxy-1,4-naphthalenedione, 9Cl. Echinochrome A. Echinochrome



CAS Registry Number: 517-82-8

Related CAS Registry Numbers(s): 1471-96-1

Molecular Formula: C₁₂H₁₀O₇

Molecular Weight: 266.207

Accurate Mass: 266.042655

Percentage Composition: C 54.14%; H 3.79%; O 42.07%

General Statement: Potentially tautomeric with the 6-ethyl tautomer

Biological Source: Pigment from mature ovaries of *Arbacia pustulosa* and *Echinothrix* spp. (sea urchins)

Use/Importance: Present as the prosthetic group of a high-molecular-weight complex which acts as a spermatozoa activating and agglutinating agent

Physical Description: Dark-red needles (toluene)

Melting Point: Mp 220°

Solubility: BERDY SOL: Sol. MeOH, Me₂CO, bases, Et₂O; fairly sol. CHCl₃; poorly sol. hexane, H₂O

UV: [neutral] λ_{max} 260 (ε 21000); 343 (ε 9800); 470 (ε 7600); 530 (ε 4560) (EtOH) (Berdy) [neutral] λ_{max} 462 (); 497 (); 533 () (CHCl₃) (Berdy) [neutral] λ_{max} 461 (); 494 (); 532 () (C₆H₆) (Berdy)

>>Derivative: 3,6,7-Tri-Me ether

Molecular Formula: C₁₅H₁₆O₇

Molecular Weight: 308.287

Accurate Mass: 308.089605

Percentage Composition: C 58.44%; H 5.23%; O 36.33%

Physical Description: Red needles

Melting Point: Mp 129-130°

References:

Lederer, E., *C. R. Hebd. Seances Acad. Sci.*, 1939, **208**, 1939, (*isol*)

Kuhn, R. *et al.*, *Ber.*, 1942, **75**, 407

Wallenfels, K. *et al.*, *Ber.*, 1942, **75**, 413

Goodwin, T.W. *et al.*, *Experientia*, 1951, **7**, 375

Moore, R.E., *J.O.C.*, 1966, **31**, 3645, (*synth*)