(R)-Equol
Catalog No. 10010172

CAS Registry No.: 221054-79-1
Formal Name: 3,4-dihydro-3R-(4-hydroxyphenyl)-2H-1-benzopyran-7-ol
Synonyms: (+)-Equol, Isoequol
MF: C_{14}H_{14}O_3
FW: 242.3
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid

Laboratory Procedures
For long term storage, we suggest that (R)-equol be stored as supplied at -20°C. It should be stable for at least two years.

(R)-Equol is supplied as a crystalline solid. A stock solution may be made by dissolving the (R)-equol in an organic solvent purged with an inert gas. (R)-Equol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of (R)-equol in these solvents is approximately 20 mg/ml in ethanol and DMSO and approximately 10 mg/ml in DMF.

(R)-Equol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, (R)-equol should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. (R)-Equol has a solubility of approximately 0.1 mg/ml in a 1:10 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Equol is a non-steroidal estrogen produced from the metabolism of the isoflavonoid phytoestrogen daidzein by human intestinal microflora. In contrast to the estrogen receptor (ER) selectivity of (S)-equol, (R)-equol is a weaker ER agonist that binds to ERα and ERβ with Kᵦ values of 27.4 and 15.4 nM, respectively. The (R)-enantiomer demonstrates higher ER agonist activity at ERα compared to ERβ (EC_{50} = 66 and 330 nM, respectively). [1, 2]

Related Products
F16 - Cat. No. 10022 • (+)-Equol - Cat. No. 13184 • Daidzein - Cat. No. 10005166 • Genistein - Cat. No. 10005167 • Diethylstilbestrol - Cat. No. 10006876 • GW 610 - Cat. No. 10018472 • (S)-Equol - Cat. No. 10010172

References

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA
This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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