(S)-Equol

Item No. 10010173

CAS Registry No.: 531-95-3
Formal Name: (S)-3,4-dihydro-3-(4-hydroxyphenyl)-2H-1-benzopyran-7-ol
Synonyms: 47-Dihydroxyisoflavan, (-)-Equol, 4',7-Isoflavandiol
MF: C15H14O3
FW: 242.3
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis: λmax: 225, 283 nm

Laboratory Procedures

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

(S)-Equol is supplied as a crystalline solid. A stock solution may be made by dissolving the (S)-equol in an organic solvent purged with an inert gas. (S)-Equol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of (S)-equol in these solvents is approximately 15 mg/ml.

(S)-Equol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, (S)-equol should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. (S)-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. The estrogen receptor (ER) agonist activity of the naturally occurring (S)-enantiomer (EC50 = 85 and 65 nM for human ERα and ERβ, respectively) is similar to that of genistein but exceeds that of daidzein. (S)-Equol preferentially binds ERβ (Kd = 0.73 nM) and demonstrates approximately 9-fold lower affinity for ERα (Kd = 6.41 nM).

(S)-equol is also a potent antagonist of dihydrotestosterone, which has important implications for prostate cancer and other androgen-mediated pathologies.

References

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/10010173

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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