LKT Laboratories, Inc.

S-Equol

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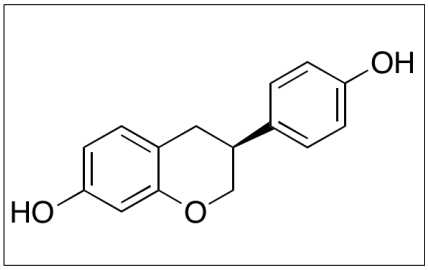
Product Information

Product ID E6782
CAS No. 531-95-3
Chemical Name (S)-3-(4-Hydroxyphenyl)chroman-7-ol



Synonym (3S)-3,4-Dihydro-3-(4-hydroxyphenyl)-2H-1-benzopyran-7-ol, (S)-(-)-4',7-isoflavandiol, (S)-Equol, Equol

Formula $C_{15}H_{14}O_3$
Formula Wt. 242.27
Melting Point 189.5°C
Purity ≥99%
Solubility Soluble in DMSO, ethanol, dilute aqueous base. Insoluble in water.

Bulk quanitites available upon request

Product ID	Size
E6782	5 mg
E6782	25 mg

Store Temp -20°C
Ship Temp Ambient

Description (*S*)-Equol is a metabolite produced in humans and animals after consuming daidzein, a soy isoflavone. While equol exists in two enantiomeric forms S-equol and R-equol, it is the former that binds preferentially to the estrogen receptor beta. Equol exhibits anti-aging, antioxidative, estrogenic, anti-inflammatory, and chemopreventive activities. In vitro, equol increases expression of extracellular matrix proteins collagen and elastin as well as nerve growth factor (NGF) and decreases expression of aging genes and pro-inflammatory cytokines such as matrix metalloproteinases 1, 3, and 9 (MMP1/3/9), COX-1, IL-6, and IL-1α. In fibroblasts, equol inhibited ROS generation and oxidative stress. In animal models, equol increases activity of catalase, superoxide dismutase (SOD), glutathione peroxidase, and glutathione reductase. Additionally, equol inhibits TNF-α production, NF-κB activation, and IκB kinase degradation in macrophages. This compound increases activation of p53, caspase 3, and poly(ADP)-ribose polymerase (PARP), increases expression of p21 and Bax, and decreases expression of Bcl-2, resulting in apoptosis and inhibition of tumor formation in animal models.

References

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