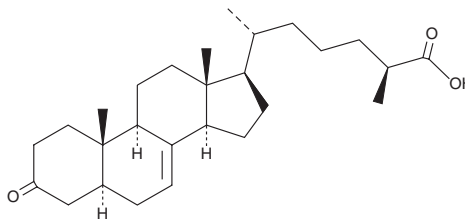


PRODUCT INFORMATION

(25S)- Δ^7 -Dafachronic Acid

Item No. 14101

CAS Registry No.: 949004-12-0
Formal Name: (5 α ,25S)-3-oxo-cholest-7-en-26-oic acid
Synonyms: (25S)- Δ^7 -DA, UPF-1404
MF: C₂₇H₄₂O₃
FW: 414.6
Purity: $\geq 95\%$
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥ 2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

(25S)- Δ^7 -Dafachronic acid is supplied as a crystalline solid. A stock solution may be made by dissolving the (25S)- Δ^7 -dafachronic acid in the solvent of choice. (25S)- Δ^7 -Dafachronic acid is soluble in organic solvents such as ethanol, DMSO, and methanol, which should be purged with an inert gas.

Description

During unfavorable environmental conditions, *C. elegans* larvae undergo arrest and form dauer larvae that can attach to other animals as a parasitic strategy for survival.^{1,2} DAF-12 is an orphan nuclear hormone receptor that regulates dauer larva diapause, reproductive development, fat metabolism, and life cycle/longevity in *C. elegans*.³⁻⁵ DAF-12 is required for entry into dauer when it is not bound to ligand by acting as a transcriptional repressor of target genes that favor reproductive development. (25S)- Δ^7 -Dafachronic acid is a sterol-derived hormone that acts as a ligand of DAF-12 with an EC₅₀ value of 23 nM.^{3,6-8} At 50 nM, (25S)- Δ^7 -Dafachronic acid inhibits the dauer-promoting activity of DAF-12, blocking the formation of infective larvae in several parasitic nematodes in favor of reproductive maturation to adults.^{1,9} Thus, selective ligand modulators of DAF-12 are a potential therapeutic approach to stop larvae progression during parasitic infection.²

References

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WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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