

Product Data Sheet

Product Name: Nat-20(S)-yne

Cat. No.: GC44321

Chemical Properties

Cas. No. 1397692-46-4

SMILES O[C@H](C1)CC[C@@]2(C)C1=CC[C@]3([H])[C@]2([H])CC[C@@]4(C)[C@@]3([H])CC[C@]4([H])[C@](O)(C)CCC#C

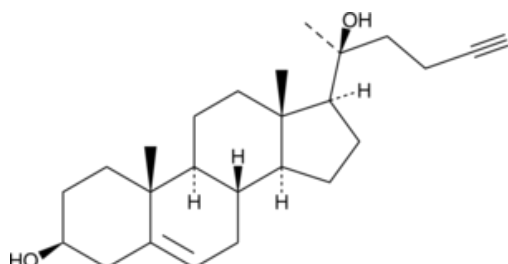
Formula C₂₅H₃₈O₂ M.Wt 370.6

Solubility DMF: 14 mg/ml, DMSO: 0.5 mg/ml, Ethanol: 10 mg/ml Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

Smoothened (SMO) is a GPCR-like receptor which, with Patched, mediates hedgehog signaling to regulate gene expression through the Gli transcription factors. 20(S)-hydroxy Cholesterol (20(S)-OHC) is an oxysterol which binds SMO and activates hedgehog signaling (EC₅₀ = 3 μM), and this activation is selective for the nat-20(S)-OHC enantiomer. Nat-20(S)-OHC synergizes with the SMO agonist SAG, suggesting an allosteric effect. Nat-20(S)-yne is a form of nat-20(S)-OHC with a terminal alkyne group, which can be used in linking reactions known as click chemistry. Click chemistry involves highly dependable and specific azide-alkyne bioconjugation reactions and can be used to capture or immobilize bioactive molecules. Thus, nat-20(S)-yne has been conjugated with magnetic beads to demonstrate that nat-20(S)-OHC directly binds SMO.

Caution: Product has not been fully validated for medical applications. For research use only.

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