

Product Name : Withaferin A

Synonyms : NSC 101088; NSC 273757

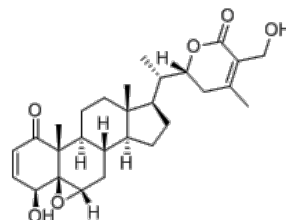
Cat No. : M14768

CAS Number : 5119-48-2

Molecular Formula : C₂₈H₃₈O₆

Formula Weight : 470.60

Chemical Name : (4 β ,5 β ,6 β ,22R)-5,6-Epoxy-4,22,27-trihydroxy-1-oxoergosta-2,24-dien-26-oic acid δ -lactone



Description : Withaferin A is a steroid lactone that displays anti-inflammatory, antitumor and antiangiogenic activity, potently inhibits NF- κ B activation by preventing the TNF-induced activation of IKK β via a thioalkylation-sensitive redox mechanism; potently inhibits the chymotrypsin-like activity of a purified rabbit 20S proteasome (IC₅₀=4.5 μ M) and 26S proteasome in human prostate cancer cultures (at 5-10 μ M) and xenografts (4-8 mg/kg/day), inhibits cell proliferation in HUVECs (IC₅₀ =12 nM).

Pathway : Apoptosis

Target : NF- κ B

Receptor : NF- κ B

Solubility : —

SMILES : CC12C(CCC2[C@@H](C)[C@H](O)CC(CO3)=C(C)C3=O)C4C[C@@H]5[C@](C6(C)C4CC1)(O5)[C@H](O)C=CC6=O

Storage : (-20°C)

Stability : $\geq$ 2 years

Reference :

1. Falsey RR, et al. Nat Chem Biol. 2006 Jan;2(1):33-8. | 2. Kaileh M, et al. J Biol Chem. 2007 Feb 16;282(7):4253-64. | 3. Yang H, et al. Mol Pharmacol. 2007 Feb;71(2):426-37. | 4. Mohan R, et al. Angiogenesis. 2004;7(2):115-22.