# Data Sheet (Cat.No.TN2327)

TargetMol

## Zedoarondiol

### Chemical Properties

CAS No. : 98644-24-7

Formula: C15H24O3

Molecular Weight: 252.354

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

### Biological Description

| | |
|---|---|
| Description | Zedoarondiol has anti-inflammatory activity, inhibits iNOS, COX-2, and pro-inflammatory cytokine expressions by suppressing the phosphorylations of IKK and MAPKs, and by subsequently inactivating the NF-kappaB pathway. |
| Targets(IC50) | NOS,NF-κB,Reactive Oxygen Species,COX,ROS |
| In vitro | In this study, we investigated the anti-inflammatory effects of Zedoarondiol, a sesquiterpene lactone isolated from the rhizoma of Curcuma heyneana, in lipopolysaccharide (LPS)-stimulated macrophage cells. Zedoarondiol dose-dependently inhibited LPS-stimulated nitric oxide (NO), prostaglandin E(2) (PGE(2)), tumor necrosis factor-alpha (TNF-alpha), interleukin-6 (IL-6), and interleukin-1beta (IL-1beta) productions in RAW 264.7 macrophage and in mouse peritoneal macrophage cells. Consistent with these findings, in RAW 264.7 cells, Zedoarondiol suppressed the LPS-stimulated protein levels of inducible nitric oxide synthase (iNOS) and cyclooxygenase-2 (COX-2) and the mRNA expressions of iNOS, COX-2, TNF-alpha, IL-6, and IL-1beta in a concentration-dependent manner. Moreover, molecular data revealed that Zedoarondiol inhibited LPS-stimulated DNA binding activity and the transcription activity of nuclear factor-kappa B (NF-kappaB), and this effect was accompanied by decreases in the degradation and phosphorylation of inhibitory kappaB (IkappaB)-alpha, and in the subsequent blocking of NF-kappaB translocations to the nucleus. Furthermore, Zedoarondiol attenuated the phosphorylations of IkappaB kinase (IKK), extracellular signal-regulated kinase (ERK), p38 mitogen-activated protein kinase (p38), and c-Jun N-terminal kinase (JNK) in LPS-stimulated RAW 264.7 cells. |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 3.9628 mL | 19.8138 mL | 39.6275 mL |
| 5 mM | 0.7926 mL | 3.9628 mL | 7.9255 mL |
| 10 mM | 0.3963 mL | 1.9814 mL | 3.9628 mL |
| 50 mM | 0.0793 mL | 0.3963 mL | 0.7926 mL |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Zedoarondiol isolated from the rhizoma of Curcuma heyneana is involved in the inhibition of iNOS, COX-2 and pro-inflammatory cytokines via the downregulation of NF-kappaB pathway in LPS-stimulated murine macrophages.Int Immunopharmacol. 2009 Aug;9(9):1049-57.