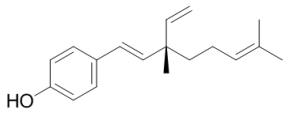
MOLNOVA
HIT YOUR RESEARCH TO LEAD

# Datasheet (Version 1.0)

| | | |
|---|---|---|
| **Product Name** | : | Bakuchiol |
| **Synonyms** | : | (S)-(+)-Bakuchiol |
| **Cat No.** | : | M21822 |
| **CAS Number** | : | 10309-37-2 |
| **Molecular Formula** | : | C18H24O |
| **Formula Weight** | : | 256.38 |
| **Chemical Name** | : | —— |
| **Description** | : | Bakuchiol is a phytoestrogen isolated from the seeds of Psoralea corylifolia L; has anti-tumor effects. IC50 value: Target: in vitro: Bakuchiol reduced mitochondrial membrane potential (Psim) of cells in a concentration- and time-dependent manner, showing a more potent effect than that of resveratrol. S phase arrest, caspase 9/3 activaton, p53 and Bax up-regulation, as well as Bcl-2 down-regulation were observed in bakuchiol-treated A549 cells. UGT2B7 was inhibited by the strongest intensity. The noncompetitive inhibition was demonstrated by the results obtained from Dixon plot and Lineweaver-Burk plot. The Ki value was calculated to be 10.7 μM. Bakuchiol was found to be naturally occurring potent inhibitors of hCE2, with low Ki values ranging from 0.62μM to 3.89μM. |
| **Pathway** | : | MAPK/ERK Signaling |
| **Target** | : | p38 MAPK |
| **Receptor** | : | —— |
| **Solubility** | : | DMSO : 62.5 mg/mL (243.78 mM; Need ultrasonic);H2O : < 0.1 mg/mL (insoluble) |
| **SMILES** | : | OC1=CC=C(/C=C/[C@](C)(C=C)CC/C=C(C)\C)C=C1 |
| **Storage** | : | (-20℃) |
| **Stability** | : | ≥ 2 years |
| **Reference** | : | |




1. Chen Z, et al. Anti-tumor effects of bakuchiol, an analogue of resveratrol, on human lung adenocarcinoma A549 cell line. Eur J Pharmacol. 2010 Sep 25;643(2-3):170-9. 2. Xu Y, et al. In vitro evidence for bakuchiol's influence towards drug metabolism through inhibition of UDP-glucuronosyltransferase (UGT) 2B7. Afr Health Sci. 2014 Sep;14(3):564-9. 3. Li YG, et al. Fructus Psoraleae contains natural compounds with potent inhibitory effects towards human carboxylesterase 2. Fitoterapia. 2015 Jan 13;101C:99-106.