

Technical Note:

Naturally occurring Hsp90 inhibitor. Induces Hsp90-dependent client protein degradation and displays ant proliferative activity *in vitro* (IC₅₀ values are 3.22, 8.84 and 16.8 μM in SKBr3, MCF-7 and CaCo-2 cancer cell lines respectively). Decreases ovarian cancer cell proliferation *in vitro* and may enhance cisplatin-induced reduction in proliferation (CAT.No 3387). Also exhibits anti malarial activity against *P. falciparum* (IC₅₀ values are 0.14 and 3.1 μM in parasite development and [³H]-hypoxanthine uptake assays respectively).

Key References:

1. In vitro anticancer effect of gedunin on human teratocarcinomal (NTERA-2) cancer stem-like cells.
Biomed. Res. Int. 2017, 2413197 (2017)
2. Gedunin inactivates the co-chaperone p23 protein causing cancer cell death by apoptosis.
J. Biol. Chem. 288(10), 7313-7325 (2013)
3. Gedunin, a novel hsp90 inhibitor: Semisynthesis of derivatives and preliminary structure-activity relationships.
J. Med. Chem. 51(20), 6495-6502 (2008)
4. Gedunin inhibits pancreatic cancer by altering sonic hedgehog signaling pathway.
Oncotarget 8(7), 10891-10904 (2017)
5. Effect of gedunin on acute articular inflammation and hypernociception in mice.
Molecules 20(2), 2636-2657 (2015)
6. Gedunin, a natural tetranortriterpenoid, modulates T lymphocyte responses and ameliorates allergic inflammation.
Int. Immunopharmacol. 14(1), 82-93 (2012)
7. Gedunin binds to myeloid differentiation protein 2 and impairs lipopolysaccharide-induced toll-like receptor 4 signaling in macrophages.
Mol. Pharm. 88(5), 949-961.