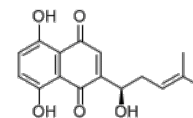


Product Name : Shikonin
Cat. No. : PC-21476
CAS No. : 517-89-5
Molecular Formula : C₁₆H₁₆O₅
Molecular Weight : 288.3
Target : IκB kinase (IKK)
Solubility : 10 mM in DMSO



Biological Activity

Shikonin is a specific inhibitor of the IKKβ/NEMO complex PPI with IC₅₀ of 170 nM, blocks the complex formation in vitro, in cell culture and in animal models.

Shikonin possesses various physiological and pharmacological properties, including anti-inflammatory, wound healing, and anti-cancer effects.

Shikonin suppresses the malignant phenotypes of colorectal cancer cells in vitro and in vivo, decreases the protein levels Cyclin E1/D1, CDK4 and MMP2/9, while increasing the levels of cleaved caspases 3 and 9, cleaved PARP, and TIMP.

Shikonin shows no effects on the upstream regulators of IKKβ/NEMO complex.

Shikonin effectively impairs NEMO/IKKβ interaction with IC₅₀ of 231.03 nM in fluorescence resonance energy transfer (FRET) assays.

Shikonin is a natural product and is a bioactive constituent of Lithospermum erythrorhizon, which has a long history of more than 2000 years of use as a Chinese medicinal herb known as zicao.

References

Zhenlong Yu, et al. Signal Transduction and Targeted Therapy volume 7, Article number: 71 (2022)

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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