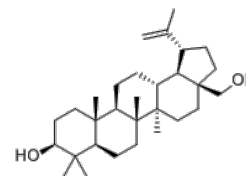


**Product Name** : Betulin  
**Cat. No.** : PC-20459  
**CAS No.** : 473-98-3  
**Molecular Formula** : C<sub>30</sub>H<sub>50</sub>O<sub>2</sub>  
**Molecular Weight** : 442.73  
**Target** : Other Targets  
**Solubility** : 10 mM in DMSO



## Biological Activity

Betulin (NSC 4644) is a specific small molecule inhibitor of **SREBP** (Sterol regulatory element-binding protein), specifically inhibits the maturation of SREBP by inducing interaction of SREBP cleavage activating protein (SCAP) and Insig. Betulin binds to SREBP cleavage activating protein (SCAP), stimulates the interaction between SCAP and Insig, blocks the maturation of SREBPs

Betulin specifically inhibits the SREBP processing but does not activate LXR or accelerate HMGCR degradation.

Betulin downregulates SREBP target genes and decreases cellular lipid levels, including HMGCR, HMG-CoA synthase (HMGCS), and squalene epoxidase (SE), SREBP-1c, fatty acid synthase (FAS), and acetyl-Co A carboxylase alpha (ACC). Betulin decreased the lipid levels in serum and tissues and increased insulin sensitivity in western-type diet ingested mice. Betulin reduced the size and improved the stability of atherosclerotic plaques in atherosclerosis disease model, LDLR-knockout mice.

## References

Tang JJ, et al. *Cell Metab.* 2011 Jan 5;13(1):44-56.

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

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