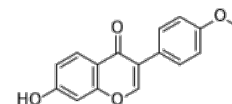


**Product Name** : Formononetin  
**Cat. No.** : PC-28171  
**CAS No.** : 485-72-3  
**Molecular Formula** : C<sub>16</sub>H<sub>12</sub>O<sub>4</sub>  
**Molecular Weight** : 268.27  
**Target** : FGFR  
**Solubility** : 10 mM in DMSO



### Biological Activity

Formononetin (Flavosil, Biochanin B, Formononetol) is a natural isoflavonoid with potential anti-angiogenic and anti-cancer activities, directly inhibits **FGFR2** kinase activity with IC<sub>50</sub> of 4.31 uM.

Formononetin demonstrates inhibition of endothelial cell proliferation, migration, and tube formation in response to basic fibroblast growth factor 2 (FGF2).

Formononetin suppresses FGF2-induced microvessel sprouting of rat aortic rings and angiogenesis.

Formononetin suppresses FGF2-triggered activation of FGFR2 and protein kinase B (Akt) signaling.

Formononetin directly inhibits proliferation and blocked the oncogenic signaling pathways in breast cancer cell.

Formononetin shows growth-inhibitory activity associated with inhibition of tumor angiogenesis in xenograft models of breast cancer.

Formononetin prevents ovariectomy-induced bone loss in rats.

Formononetin also potently and preferentially inhibits the gamma-isozymes of mammalian alcohol dehydrogenase (**gamma-gamma-ADH**).

### References

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Ha H, et al. *Arch Pharm Res*. 2010 Apr;33(4):625-32.

Wong CK, et al. *J Steroid Biochem Mol Biol*. 1999 Dec 31;71(5-6):191-202.

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

E-mail: tech@probechem.com