

**Catalog # 10-2252**

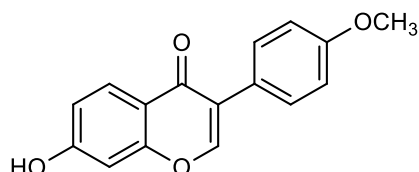
**Formononetin**

CAS# 485-72-3

7-hydroxy-3-(4-methoxyphenyl)-4H-1-benzopyran-4-one

7-Hydroxy-4'-methoxyisoflavone; Biochanin B; Neochanin; NSC 93360; Formononetol

Lot # X102240



A naturally occurring isoflavone isolated from *Astragalus* and other plants. Increases adipocyte thermogenesis by modulating PPAR $\gamma$  activity.<sup>1</sup> Activates AMP-activated protein kinase/ $\beta$ -catenin signaling to inhibit adipogenesis.<sup>2</sup> Accelerates wound repair by increasing expression of Egr-1 transcription factor.<sup>3</sup> Potential cancer chemopreventive and chemotherapeutic.<sup>4</sup> Provides neuroprotection against traumatic brain injury by inhibition of neuroinflammation in a rat model.<sup>5</sup>

- 1) Nie *et al.* (2018), *The natural compound, formononetin, extracted from Astragalus membranaceus increases adipocyte thermogenesis by modulating PPAR $\gamma$  activity*; Br. J. Pharmacol., **175** 1439
- 2) Gautam *et al.* (2017), *Formononetin, an isoflavone, activates AMP-activated protein kinase/ $\beta$ -catenin signaling to inhibit adipogenesis and rescues C57BL/6 mice from high-fat diet-induced obesity and bone loss*; Br. J. Nutr., **117** 645
- 3) Huh *et al.* (2011), *Formononetin accelerates wound repair by the regulation of early growth response factor-1 transcription factor through the phosphorylation of the ERK and p38 MAPK pathways*; Int. Immunopharmacol., **11** 46
- 4) Ong *et al.* (2019), *Focus on Formononetin: Anticancer Potential and Molecular Targets*; Cancers (Basel), **11** E611
- 5) Li *et al.* (2018), *Neuroprotective effect of formononetin against TBI in rats via suppressing inflammatory reaction in cortical neurons*; Biomed. Pharmacother., **106** 349

**PHYSICAL DATA**

Molecular Weight:	268.26
Molecular Formula:	C <sub>16</sub> H <sub>12</sub> O <sub>4</sub>
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 100 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 1 month.

**Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.**