

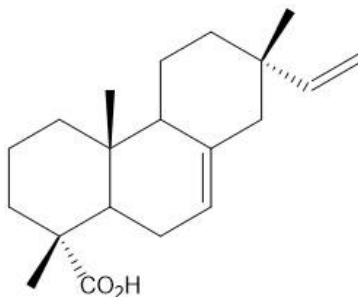
**Catalog # 10-5487**

**Isopimaric acid**

CAS# 5835-26-7

(1R,4aR,4bS,7S,10aR)-7-Ethenyl-1,2,3,4,4a,4b,5,6,7,8,10,10a-dodecahydro-1,4a,7-trimethyl-1-phenanthrenecarboxylic acid

Lot #



Terpenoid acid that activates BK (voltage-gated potassium) channels when used at 10  $\mu$ M in HEK293 cells.<sup>1</sup> Improves spatial and non-spatial memory in Alzheimer's mouse model<sup>2,3</sup>, and significantly improves motor function in a rat spinal cord injury model<sup>4</sup>. Reduces hyperactivity of spontaneously active auditory networks,  $EC_{50}=7.8 \mu$ M.<sup>5</sup>

- 1) Imaizumi *et al.* (2002), *Molecular basis of pimarane compounds as coval activators of large-conductance CA(2+)-activated K(+)* channel *alpha*-subunit, *Mol. Phamracol.*, **62** 836
- 2) Wang *et al.* (2015), *Cognitive recovery by chronic activation of the large-conductance calcium-activated potassium channel in a mouse model of Alzheimer's disease*; *Neuropharmacology*, **92** 8
- 3) Wang *et al.* (2015), *Improvement of spatial learning by facilitating large-conductance calcium-activated potassium channel with transcranial magnetic stimulation in Alzheimer's disease model mice*; *Neuropharmacology*, **97** 210
- 4) Jacobsen *et al.* (2018), *Activation of the Large-conductance, Voltage, and Ca<sup>2+</sup>-Activated K<sup>+</sup> (BK) Channel in Acute Spinal Cord Injury in the Wistar Rat is Neuroprotective*; *Front. Neurol.*, **9** 1107
- 5) Wu *et al.* (2014), *Pharmacodynamics of potassium channel openers in cultured neuronal networks*; *Eur. J. Pharmacol.*, **732** 68

**PHYSICAL DATA**

Molecular Weight:	302.45
Molecular Formula:	C <sub>20</sub> H <sub>30</sub> O <sub>2</sub>
Purity:	98% by GC, TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 40 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 1 year from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months.

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

