

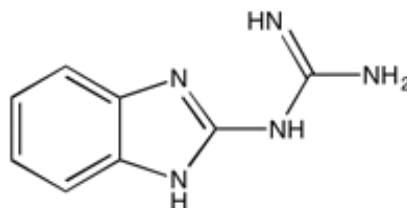
**Catalog # 10-3127**

**2GBI**

CAS# 5418-95-1

2-Guanidinobenzimidazole

Lot # X106295



A selective and state-dependent blocker of voltage-gated proton channels (Hv1).<sup>1</sup> 2GBI blocks the channel by binding to the voltage-sensing domain from its intracellular side.<sup>2,3</sup> Inhibition of Hv1 is a potentially new target of intervention in various pathophysiological processes including inflammatory, cancer, bone resorption and neurodegenerative disease.<sup>4</sup>

- 1) Hong et al. (2015), *Interrogation of the intersubunit interface of the open Hv1 proton channel with a probe of allosteric coupling*; *Sci. Rep.*, **5** 14077
- 2) Hong et al. (2014), *Molecular determinants of Hv1 proton channel inhibition by guanidine derivatives*; *Proc. Natl. Acad. Sci. USA*, **111** 9971
- 3) Gianti et al. (2016), *On the role of water density fluctuations in the inhibition of a proton channel*; *Proc. Natl. Acad. Sci. USA*, **113** E8359
- 4) Pupo and Gonzalez (2014), *In pursuit of an inhibitory drug for the proton channel*; *Proc. Natl. Acad. Sci. USA*, **111** 9673

**PHYSICAL DATA**

Molecular Weight:	175.19
Molecular Formula:	C <sub>8</sub> H <sub>9</sub> N <sub>5</sub>
Purity:	95% by HPLC
	NMR: (Conforms)
Solubility:	Soluble in DMSO (up to 50 mg/ml) or in Water (up to 4 mg/ml with warming)
Physical Description:	Beige solid
Storage and Stability:	Store as supplied desiccated at room temperature for up to 1 year from the date of purchase. Solutions in DMSO or distilled water 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.**