

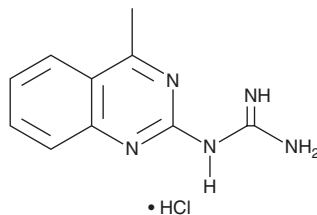
# PRODUCT INFORMATION



## GMQ (hydrochloride)

Item No. 29760

**CAS Registry No.:** 5361-15-9  
**Formal Name:** N-(4-methyl-2-quinazoliny)-  
guanidine, monohydrochloride  
**MF:** C<sub>10</sub>H<sub>11</sub>N<sub>5</sub> • HCl  
**FW:** 237.7  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 246 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

GMQ (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the GMQ (hydrochloride) in the solvent of choice, which should be purged with an inert gas. GMQ (hydrochloride) is soluble in DMSO.

### Description

GMQ is an activator of acid-sensing ion channel 3 (ASIC3).<sup>1</sup> It evokes rapid inward currents with little desensitization in CHO cells expressing ASIC3 (EC<sub>50</sub> = 67 μM at neutral pH). It is also an inhibitor of the GABA<sub>A</sub> receptor (IC<sub>50</sub> = 0.39 μM in primary rat hippocampal neurons).<sup>2</sup> GMQ has stimulatory effects on large-conductance calcium-activated potassium (K<sub>Ca</sub>1.1/BK<sub>Ca</sub>) channels in GH3 rat pituitary cells and on non-selective cation currents in Rolf B1.T olfactory sensory neurons.<sup>3</sup> It increases paw licking time in *Asic3*<sup>+/+</sup> and, to a lesser extent, *Asic3*<sup>-/-</sup> mice when administered at a dose of 100 μM, an effect that can be blocked by the ASIC inhibitor amiloride (Item No. 14409).<sup>1</sup>

### References

1. Yu, Y., Chen, Z., Li, W.G., *et al.* A nonproton ligand sensor in the acid-sensing ion channel. *Neuron* **68**(1), 61-72 (2010).
2. Xiao, X., Zhu, M.X., and Xu, T.L. 2-Guanidine-4-methylquinazoline acts as a novel competitive antagonist of A type γ-aminobutyric acid receptors. *Neuropharmacology* **75**, 126-137 (2013).
3. So, E.C., Wang, Y., Yang, L.Q., *et al.* Multiple regulatory actions of 2-guanidine-4-methylquinazoline (GMQ), an agonist of acid-sensing ion channel type 3, on ionic currents in pituitary GH3 cells and in olfactory sensory (Rolf B1.T) neurons. *Biochem. Pharmacol.* **151**, 79-88 (2018).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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