

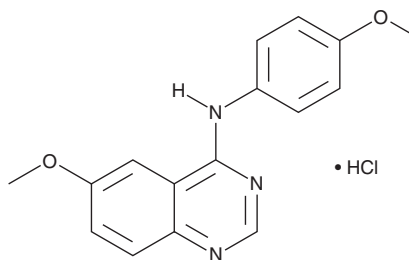
# PRODUCT INFORMATION



## LY456236 (hydrochloride)

Item No. 42263

**CAS Registry No.:** 338736-46-2  
**Formal Name:** 6-methoxy-N-(4-methoxyphenyl)-4-quinazolinamine, monohydrochloride  
**Synonym:** MPMQ  
**MF:** C<sub>16</sub>H<sub>15</sub>N<sub>3</sub>O<sub>2</sub> • HCl  
**FW:** 317.8  
**Purity:** ≥98%  
**Supplied as:** A 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

LY456236 (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the LY456236 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. LY456236 (hydrochloride) and slightly soluble (0.1-1 mg/ml) in ethanol and sparingly soluble (1-10 mg/ml) in DMSO.

### Description

LY456236 is an antagonist of metabotropic glutamate receptor 1 (mGluR1; IC<sub>50</sub> = 140 nM).<sup>1</sup> It reduces the growth of PC-9 non-small cell lung cancer cells and PC-9-AMG cells adapted to mixed-glia culture on soft substrate (MGS) in MGS co-culture but not in monoculture.<sup>2</sup> It also reduces MGS co-culture-induced increases in EGFR levels in PC-9-AMG cells. LY456236 (50 mg/kg per day) reduces tumor growth in a PC-9-AMG mouse model of brain metastasis. It inhibits seizures in a variety of seizure models, including inhibition of audiogenic clonic-tonic seizures in mice (ED<sub>50</sub> = 35 mg/kg).<sup>1</sup> LY456236 (30 and 100 mg/kg) reduces second-phase, but not first-phase, hyperalgesia induced by formalin in mice.<sup>3</sup> It also completely reverses mechanical allodynia induced by spinal nerve ligation in rats.

### References

1. Shannon, H.E., Peters, S.C., and Kingston, A.E. Anticonvulsant effects of LY456236, a selective mGluR1 receptor antagonist. *Neuropharmacology* **49(Suppl 1)**, 188-195 (2005).
2. Ishibashi, K., Ichinose, T., Kadokawa, R., et al. Astrocyte-induced mGluR1 activates human lung cancer brain metastasis via glutamate-dependent stabilization of EGFR. *Dev. Cell* **59(5)**, 579-594.e6 (2024).
3. Varty, G.B., Grilli, M., Forlani, A., et al. The antinociceptive and anxiolytic-like effects of the metabotropic glutamate receptor 5 (mGluR5) antagonists, MPEP and MTEP, and the mGluR1 antagonist, LY456236, in rodents: A comparison of efficacy and side-effect profiles. *Psychopharmacology (Berl)* **179(1)**, 207-217 (2005).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

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