Gatifloxacin is a fluoroquinolone antibiotic that inhibits bacterial DNA gyrase (IC₅₀ = 0.109 µg/mL) and topoisomerase IV (IC₅₀ = 13.8 µg/mL; Takei et al.). It is much less effective against HeLa cell topoisomerase II (IC₅₀ = 265 µg/mL; Takei et al.).

**Product Description**

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**Molecular Name:** Gatifloxacin  
**Alternative Names:** AM 1155; BMS 206584-01; PD 135432  
**CAS Number:** 112811-59-3  
**Chemical Formula:** C₁₉H₂₂FN₃O₄  
**Molecular Weight:** 375.4 g/mol  
**Purity:** ≥ 98%  
**Chemical Name:** 1-Cyclopropyl-6-fluoro-8-methoxy-7-(3-methylpiperazin-1-yl)-4-oxo-1,4-dihydroquinoline-3-carboxylic acid  
**Structure:**

![Structure of Gatifloxacin](image)

**Properties**

**Physical Appearance:** A crystalline solid  
**Storage:**  
Product stable at -20°C as supplied. Protect from prolonged exposure to light.  
Stable as supplied for 12 months from date of receipt.  
**Solubility:**  
- Absolute ethanol ≤ 20 mM  
- DMSO ≤ 45 mM  
For example, to prepare a 20 mM stock solution in DMSO, resuspend 1 mg in 225 µL of fresh DMSO.  

Prepare stock solution fresh before use. Information regarding stability of small molecules in solution has rarely been reported, however, as a general guide we recommend storage in DMSO at -20°C. Aliquot into working volumes to avoid repeated freeze-thaw cycles. The effect of storage of stock solution on compound performance should be tested for each application.

Compound has low solubility in aqueous media. For use as a cell culture supplement, stock solution should be diluted into culture medium immediately before use. Avoid final DMSO concentration above 0.1% due to potential cell toxicity.
Published Applications

MAINTENANCE AND SELF-RENEWAL
- Promotes self-renewal in cultured human and mouse embryonic stem cells (Desbordes et al.).

References


Related Small Molecules

For a complete list of small molecules available from STEMCELL Technologies, visit www.stemcell.com/smallmolecules or contact us at techsupport@stemcell.com.

This product is hazardous. Please refer to the Safety Data Sheet (SDS).