Amorolfine (hydrochloride)

**Product Information**

**CAS Registry No.:** 78613-38-4  
**Formal Name:** (2R,6S)-rel-4-[3-[4-(1,1-dimethylpropyl)phenyl]-2-methylpropyl]-2,6-dimethylmorpholine, monohydrochloride  
**Synonym:** Ro 14-4767/002  
**MF:** C_{21}H_{35}NO • HCl  
**FW:** 354.0  
**Purity:** ≥98%  
**UV/Vis.:** \( \lambda_{\text{max}}: 213, 219, 279, 318 \text{ nm} \)  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥2 years

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

**Laboratory Procedures**

Amorolfine (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the amorolfine (hydrochloride) in the solvent of choice. Amorolfine (hydrochloride) is soluble in the organic solvent ethanol, which should be purged with an inert gas, at a concentration of approximately 20 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of amorolfine (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of amorolfine (hydrochloride) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

**Description**

Amorolfine is an antifungal.\(^1\) It is active against isolates of *T. rubrum*, *T. mentagrophytes*, and *C. albicans* (MIC\(_{90}\)s = 4-15, 4-60, and ≤30-500 ng/ml, respectively). It inhibits the growth of *T. mentagrophytes* and *T. rubrum* by 33.7 and 38.5%, respectively, in an in vitro bovine hoof model of onychomycosis.\(^2\) Amorolfine also decreases the fungal burden in a rabbit model of onychomycosis when used as a 5% nail lacquer.\(^3\) Formulations containing amorolfine have been used in the treatment of fungal infections of the toe- or fingernails.

**References**