Acitretin
Item No. 20853

CAS Registry No.: 55079-83-9
Formal Name: (2E,4E,6E,8E)-9-(4-methoxy-2,3,6-trimethylphenyl)-3,7-dimethyl-2,4,6,8-nonatetraenoic acid
Synonyms: all-trans Acitretin, Ro 10-1670, Ro 10-1670/000
MF: C_{21}H_{26}O_{3}
FW: 326.4
Purity: \geq 98%
UV/Vis.: \lambda_{max}^* 357 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly

Laboratory Procedures

Acitretin is supplied as a crystalline solid. A stock solution may be made by dissolving the acitretin in the solvent of choice. Acitretin is soluble in organic solvents such as DMSO and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of acitretin in these solvents is approximately 1 and 5 mg/ml, respectively.

Acitretin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, acitretin should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Acitretin has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Acitretin is a second-generation retinoid that was introduced when etretinate (Item No. 19878) was withdrawn due to teratogenicity. Acitretin is a metabolite of etretinate that has been used clinically in the treatment of severe resistant psoriasis.\textsuperscript{1} Acitretin demonstrates antiproliferative activity in various tumor cell lines.\textsuperscript{2}

References