PRODUCT INFORMATION

(±)4-Hydroxymephenytoin
Item No. 16124

CAS Registry No.: 61837-65-8
Formal Name: 5-ethyl-5-(4-hydroxyphenyl)-3-methyl-2,4-imidazolidinedione
MF: C_{12}H_{14}N_{2}O_{3}
FW: 234.3
Purity: ≥98%
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

(±)4-Hydroxymephenytoin is supplied as a crystalline solid. A stock solution may be made by dissolving the (±)4-hydroxymephenytoin in the solvent of choice, which should be purged with an inert gas. (±)4-Hydroxymephenytoin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of (±)4-hydroxymephenytoin in ethanol is approximately 15 mg/ml and approximately 25 mg/ml in DMSO and DMF.

(±)4-Hydroxymephenytoin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, (±)4-hydroxymephenytoin should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. (±)4-Hydroxymephenytoin has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

(±)4-Hydroxymephenytoin is a metabolite of (R)-mephenytoin (Item No. 25891) and (S)-mephenytoin (Item No. 11913). It is formed from (R)- and (S)-mephenytoin by the cytochrome P450 (CYP) isoform CYP2C19 in the liver.

References