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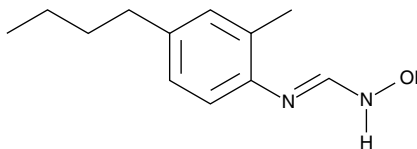
Product Information



HET0016

Item No. 75780

CAS Registry No.: 339068-25-6
Formal Name: N-(4-butyl-2-methylphenyl)-N'-hydroxy-methanimidamide
Synonym: N-hydroxy-N'-(4-n-butyl-2-methylphenyl) Formamidine
MF: C₁₂H₁₈N₂O
FW: 206.3
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 210, 257, 291 nm



Laboratory Procedures

For long term storage, we suggest that HET0016 be stored as supplied at -20°C. It should be stable for at least two years.

HET0016 is supplied as a crystalline solid. A stock solution may be made by dissolving the HET0016 in an organic solvent purged with an inert gas. HET0016 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of HET0016 in these solvents is approximately 14 mg/ml.

HET0016 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, HET0016 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. HET0016 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.

20-HETE is a major biologically active cytochrome P450 (CYP450) metabolite of arachidonic acid in the kidney and liver. It regulates renal vascular and tubular functions as well as vascular tone in the cerebral circulation.¹⁻⁵ HET0016 is an inhibitor of 20-HETE formation in human renal microsomes with an IC₅₀ of 8.9 nM, selectively inhibiting CYP4A and 4F isoforms.^{6,7} HET0016 inhibits CYP2C9, CYP2D6, and CYP3A4, enzymes important in drug metabolism, significantly less effectively with IC₅₀ values in the μM range. The IC₅₀ values for inhibition of cyclooxygenase and epoxyeicosatrienoic acids (ETs) formation are 2.3 and 2.8 μM, respectively.⁶

References

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3. Lin, F., Rios, A., Falck, J.R., *et al.* 20-Hydroxyeicosatetraenoic acid is formed in response to EGF and is a mitogen in rat proximal tubule. *Am. J. Physiol. Renal Fluid Electrolyte Physiol.* **38**, F806-F816 (1995).
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7. Kehl, F., Cambj-Sapunar, L., Maier, K., *et al.* 20-HETE contributes to the acute fall in cerebral blood flow after subarachnoid hemorrhage in the rat. *Am. J. Physiol. Heart Circ. Physiol.* **282**, H1556-H1565 (2002).

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