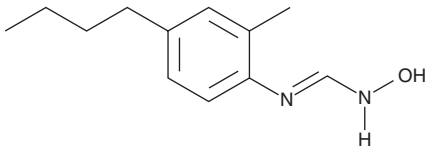
PRODUCT INFORMATION

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:	$C_{12}H_{18}N_2O$
FW:	206.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 210, 257, 291 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



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

Laboratory Procedures

HET0016 is supplied as a crystalline solid. A stock solution may be made by dissolving the HET0016 in the solvent of choice, which should be purged with an inert gas. HET0016 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of HET0016 in ethanol is approximately 14 mg/ml and approximately 20 mg/ml in DMSO and DMF.

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.

Description

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 IC_{50} 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 IC_{50} values in the µM range. The IC_{50} values for inhibition of cyclooxygenase and epoxyeicosatrienoic acids (EETs) 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. Am. J. Physiol. Renal Fluid Electrolyte Physiol.* **38**, F806-F816 (1995).
4. Imig, J.D., Zou, A.-P., de Montellano, P.R.O., *et al. Am. J. Physiol. Heart Circ. Physiol.* **35**, H1879-H1885 (1994).
5. Gebremedhin, D., Lange, A.R., Lowry, T.F., *et al. Circ. Res.* **87**, 60-65 (2000).
6. Miyata, N., Taniguchi, K., Seki, T., *et al. Br. J. Pharmacol.* **133**, 325-329 (2001).
7. Kehl, F., Cambj-Sapunar, L., Maier, K., *et al. Am. J. Physiol. Heart Circ. Physiol.* **282**, H1556-H1565 (2002).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent *via* email to your institution.

WARRANTY AND LIMITATION OF REMEDY
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CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM