

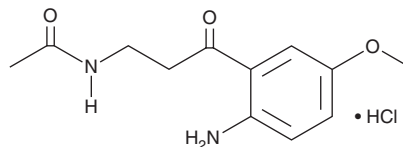
PRODUCT INFORMATION



AMK (hydrochloride)

Item No. 34688

CAS Registry No.: 1215711-91-3
Formal Name: N-[3-(2-amino-5-methoxyphenyl)-3-oxopropyl]-acetamide, monohydrochloride
Synonyms: N- γ -acetyl-5-Methoxykynurenamine, N¹-acetyl-5-Methoxykynuramine
MF: C₁₂H₁₆N₂O₃ • HCl
FW: 272.7
Purity: ≥95%
Supplied as: A 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

AMK (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the AMK (hydrochloride) in the solvent of choice, which should be purged with an inert gas. AMK (hydrochloride) is slightly soluble in methanol.

AMK (hydrochloride) is slightly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

AMK is an active metabolite of the neurohormone melatonin (Item No. 14427).¹⁻⁴ It is formed from melatonin via the metabolic intermediate AFMK (Item No. 10005254) that is then deformedylated by catalase or formamidase.^{5,6} AMK scavenges singlet oxygen *in vitro* when used at a concentration of 200 μ M.¹ It inhibits the epinephrine- and arachidonic acid-induced production of prostaglandin E₂ (PGE₂; Item No. 14010) and PGD₂ (Item No. 12010) in ovine seminal vesicle microsomes in a concentration- and time-dependent manner, as well as LPS-induced increases in COX-2 levels in RAW 264.7 macrophages when used at a concentration of 500 μ M.^{2,3} AMK (20 mg/kg) decreases MPTP-induced increases in lipid peroxidation in the cytosol and mitochondria from substantia nigra and striatum in a mouse model of MPTP-induced Parkinson's disease.⁴

References

1. Schaefer, M. and Hardeland, R. *J. Pineal Res.* **46(1)**, 49-52 (2009).
2. Kelly, R.W., Amato, F., and Seamark, R.F. *Biochem. Biophys. Res. Commun.* **121(1)**, 372-379 (1984).
3. Mayo, J.C., Sainz, R.M., Tan, D.-X., *et al.* *J. Neuroimmunol.* **165(1-2)**, 139-149 (2005).
4. Tapias, V., Escames, G., López, L.C., *et al.* *J. Neurosci. Res.* **87(13)**, 3002-3010 (2009).
5. Tan, D.-X., Manchester, L.C., Reiter, R.J., *et al.* *Free Radic. Biol. Med.* **29(11)**, 1177-1185 (2000).
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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.

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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