

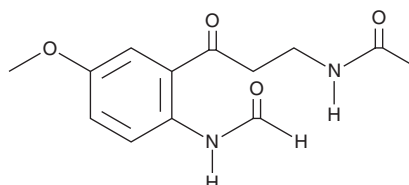
# PRODUCT INFORMATION



## AFMK

Item No. 10005254

**CAS Registry No.:** 52450-38-1  
**Formal Name:** N-[3-[2-(formylamino)-5-methoxyphenyl]-3-oxypropyl]-acetamide  
**Synonyms:** N-acetyl-N-formyl-5-Methoxykynuramine, NSC 688263  
**MF:** C<sub>13</sub>H<sub>16</sub>N<sub>2</sub>O<sub>4</sub>  
**FW:** 264.3  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 236, 266, 352 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

AFMK is supplied as a crystalline solid. A stock solution may be made by dissolving the AFMK in the solvent of choice, which should be purged with an inert gas. AFMK is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of AFMK in ethanol is approximately 5 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of AFMK can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of AFMK in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Melatonin is a neurotransmitter widely distributed in eukaryotes and is closely linked to circadian rhythms in mammals including humans. AFMK is a melatonin metabolite first identified in rat brain.<sup>1</sup> AFMK has antioxidant and free radical scavenging activities in several experimental models.<sup>2</sup> AFMK may also be measured in plasma as an index of melatonin synthesis and metabolism.<sup>3</sup>

### References

1. Hirata, F., Hayaishi, O., Tokuyama, T., *et al.* *In vitro* and *in vivo* formation of two new metabolites of melatonin. *J. Biol. Chem.* **249**(4), 1311-1313 (1974).
2. Tan, D.X., Manchester, L.C., Burkhardt, S., *et al.* N<sup>1</sup>-acetyl-N<sup>2</sup>-formyl-5-methoxykynuramine, a biogenic amine and melatonin metabolite, functions as a potent antioxidant. *FASEB J.* **15**(12), 2294-2296 (2001).
3. Harthé, C., Claudy, D., Déchaud, H., *et al.* Radioimmunoassay of N-acetyl-N-formyl-5-methoxykynuramine (AFMK): A melatonin oxidative metabolite. *Life Sci.* **73**(12), 1587-1597 (2003).

#### 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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