

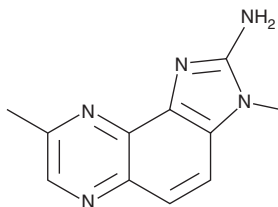
# PRODUCT INFORMATION



## 2-Amino-3,8-dimethylimidazo-[4,5-f]-quinoxaline

Item No. 34812

CAS Registry No.: 77500-04-0  
Formal Name: 3,8-dimethyl-3H-imidazo[4,5-f]quinoxalin-2-amine  
Synonym: MelQx  
MF:  $C_{11}H_{11}N_5$   
FW: 213.2  
Purity:  $\geq 95\%$   
Supplied as: A solid  
Storage:  $-20^{\circ}\text{C}$   
Stability:  $\geq 4$  years



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

### Laboratory Procedures

2-Amino-3,8-dimethylimidazo-[4,5-f]-quinoxaline is supplied as a solid (MelQx). A stock solution may be made by dissolving the MelQx in the solvent of choice, which should be purged with an inert gas. MelQx is slightly soluble in methanol and DMSO.

### Description

MelQx is a food-derived carcinogen that has been found in high temperature-cooked fish and meats.<sup>1</sup> It is activated by hydroxylation and subsequent O-acetylation via the cytochrome P450 (CYP) isoform CYP1A2 and N-acetyltransferase 2, respectively, in UV5 cells expressing the human enzymes to a metabolite that reacts with DNA to form adducts.<sup>2</sup> MelQx (200 and 400 ppm in the diet) induces tumor formation in rats.<sup>3</sup>

### References

1. Johansson, M.A. and Jägerstad, M. Occurrence of mutagenic/carcinogenic heterocyclic amines in meat and fish products, including pan residues, prepared under domestic conditions. *Carcinogenesis* **15**(8), 1511-1518 (1994).
2. Metry, K.J., Neale, J.R., Doll, M.A., *et al.* Effect of rapid human N-acetyltransferase 2 haplotype on DNA damage and mutagenesis induced by 2-amino-3-methylimidazo-[4,5-f]quinoline (IQ) and 2-amino-3,8-dimethylimidazo-[4,5-f]quinoxaline (MelQx). *Mutat. Res.* **684**(1-2), 66-73 (2010).
3. Kushida, H., Wakabayashi, K., Sato, H., *et al.* Dose-response study of MelQx carcinogenicity in F344 male rats. *Cancer Lett.* **83**(1-2), 31-35 (1994).

#### 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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/07/2022

#### 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