

NNMT INHIBITOR · METABOLIC ACTIVATOR · FAT LOSS

# 5-AMINO

# 1MQ

5-Amino-1-methylquinolinium · NNMT Inhibitor

## Metabolism · Fat Loss · Longevity

A small-molecule NNMT inhibitor that reactivates your metabolic engine at the cellular level.

### NNMT

Target Enzyme

### NAD+

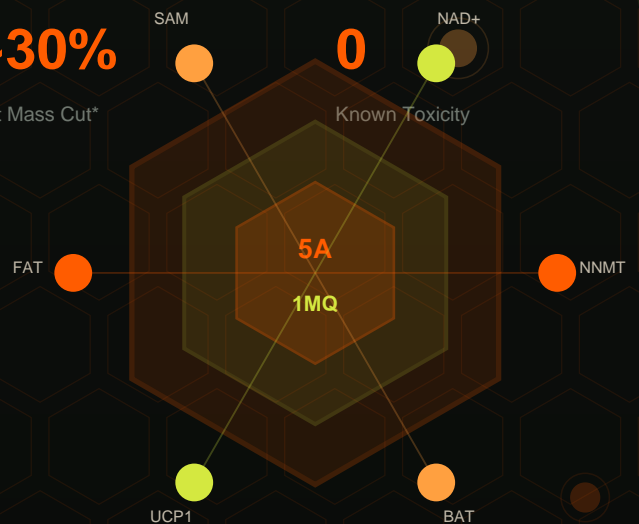
Pathway Boost

~30%

Fat Mass Cut\*

0

Known Toxicity



# What is 5-Amino 1MQ?

A potent small-molecule NNMT inhibitor that unlocks metabolic fat-burning capacity

**5-Amino-1-methylquinolinium (5-Amino 1MQ) is a cell-permeable, small-molecule inhibitor of Nicotinamide N-methyltransferase (NNMT) — a key enzyme regulating whole-body energy metabolism.**

NNMT is expressed predominantly in adipose (fat) tissue, where it catalyses the methylation of nicotinamide, consuming SAM (S-adenosylmethionine) and diverting methyl groups away from metabolically active pathways.

By inhibiting NNMT, 5-Amino 1MQ restores SAM availability, boosts NAD<sup>+</sup> biosynthesis, and triggers a cascade of metabolic activation — effectively switching white adipose tissue toward a thermogenic, energy-burning state.

## MOLECULAR IDENTITY

**5-Amino-1-methylquinolinium**

C<sub>10</sub>H<sub>11</sub>N<sub>2</sub><sup>+</sup> | MW: 159.21 | CAS: 4720-35-8

**By targeting NNMT directly in adipose tissue, 5-Amino 1MQ achieves metabolic remodelling without stimulant effects on the CNS.**

Preclinical studies demonstrate that NNMT inhibition induces brown adipose tissue (BAT)-like characteristics in white fat cells — upregulating uncoupling protein 1 (UCP1), increasing mitochondrial density, and dramatically boosting resting energy expenditure.

In diet-induced obese mouse models, 5-Amino 1MQ treatment produced significant reductions in fat mass (up to 30%) without caloric restriction, alongside improvements in insulin sensitivity, lipid profiles, and inflammatory markers.

## 5-AMINO 1MQ MECHANISM CASCADE



## Metabolic Impact vs. Baseline



# Key Benefits

Preclinical and emerging clinical evidence for NNMT inhibition



## Targeted Fat Loss

NNMT inhibition reduces adipose mass without muscle catabolism. Preclinical models show up to 30% reduction in fat mass while lean mass is preserved — a uniquely selective metabolic effect.



## NAD+ Pathway Activation

By blocking NNMT's consumption of SAM, 5-Amino 1MQ increases nicotinamide availability for NAD+ synthesis — boosting cellular energy, sirtuin activity, and mitochondrial function.



## Thermogenic Remodelling

Treated adipocytes upregulate UCP1 and adopt brown fat characteristics — dissipating energy as heat rather than storing it. Resting metabolic rate increases without stimulant side effects.



## Insulin Sensitivity

NNMT inhibition improves glucose uptake and insulin signalling in adipose and skeletal muscle tissue, with animal studies showing normalisation of glucose tolerance in obese models.



## Anti-inflammatory Profile

Reduction of pro-inflammatory adipokines (TNF- $\alpha$ , IL-6) and restoration of adiponectin levels observed in NNMT-inhibited animals — addressing the inflammatory component of metabolic syndrome.



## Longevity Signalling

Via NAD+ elevation and sirtuin activation, 5-Amino 1MQ engages core longevity pathways — including SIRT1 and SIRT3 — which regulate mitochondrial biogenesis and stress resistance.

### 5-AMINO 1MQ vs. Stimulant Fat Burners vs. GLP-1 Agonists



# Research & Dosing

Preclinical science and emerging human data on NNMT inhibition

2018

## 2018 NNMT Discovery in Obesity

Researchers at Columbia University identified NNMT overexpression as a driver of diet-induced obesity and metabolic syndrome. Genetic NNMT knockdown in mice produced a lean, metabolically active phenotype.

2019

## 2019 5-Amino 1MQ Synthesis

5-Amino 1MQ was identified as a potent, selective, cell-permeable NNMT inhibitor. In vitro studies confirmed dose-dependent inhibition with IC50 values in the nanomolar range and high selectivity.

2020

## 2020 Preclinical Fat Loss Data

Obese mouse models treated with 5-Amino 1MQ showed significant reductions in white adipose tissue mass, increased UCP1 expression, improved glucose tolerance, and reduced systemic inflammation without caloric restriction.

2021

## 2021 NAD+ and Longevity Pathways

Mechanistic studies confirmed that NNMT inhibition elevates NAD+ levels, activates SIRT1/SIRT3, and enhances mitochondrial biogenesis — linking 5-Amino 1MQ to the same longevity pathways as NMN/NR supplementation.

2023

## 2023 Emerging Human Data

Early human research and case series from clinical peptide practices report fat loss, improved energy levels, and body composition changes consistent with preclinical predictions. Formal Phase I/II trials are underway.

5A-1MQ

## Dosing Guide

**Form** Capsule / Oral

**Dose Range** 10 – 50 mg / day

**Typical Dose** 20 mg once daily

**Timing** Morning with food

**Cycle** 8 weeks on / 4 off

**Half-life** ~3–5 hours (est.)

**Stacks With** NAD+ precursors

**Storage** Cool, dry, dark

### Synergistic Compounds

NMN · NR · Berberine · Semaglutide · BPC-157

For research use only. Not approved as a therapeutic drug. All preclinical data. Consult a physician before use.

# Ignite Your Metabolism.

5-Amino 1MQ targets the root cause of metabolic dysfunction — overactive NNMT — restoring the cellular energy economy that modern lifestyle suppresses, without stimulants, without compromise.



## BURN

without muscle loss  
Targeted fat loss



## BOOST

function restored  
NAD+ and mitochondrial



## BUILD

activated  
Longevity pathways

ORDER NOW

LEARN MORE

FREE SAMPLE

## 5-AMINO 1MQ

[www.5amino1mq-research.com](http://www.5amino1mq-research.com) · [info@nmmtinhibitor.com](mailto:info@nmmtinhibitor.com) · +1 (800) 516-1219

For research purposes only. All data preclinical unless noted. Not approved as a therapeutic drug. \*Results from animal models.

Always consult a licensed healthcare professional before beginning any supplement or compound protocol.