Product Data Sheet

Inosine oxime

Cat. No.: HY-118793 CAS No.: 3414-62-8 Molecular Formula: $C_{10}H_{13}N_{5}O_{5}$

Molecular Weight: Target: **Endogenous Metabolite** Pathway: Metabolic Enzyme/Protease

283.24

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

BIOLOGICAL ACTIVITY

Description	Inosine oxime (6-Hydroxyadenosine) is an endogenous metabolite in the course of cell metabolism by cytochrome P450, by oxidative stress or by deviating nucleotide biosynthesis. Inosine oxime has toxic and mutagenic for procaryotic and eucaryotic cells ^{[1][2]} .
In Vitro	Inosine oxime (6-Hydroxyadenosine) (1-5 nM) has reductive detoxication through direct dehydroxylamination catalyzed by adenosine deaminase to inosine and decreases inosine formation by 35% with knockdown of mARC1 in HEK-293. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Plitzko B, et, al. The pivotal role of the mitochondrial amidoxime reducing component 2 in protecting human cells against apoptotic effects of the base analog N6hydroxylaminopurine. J Biol Chem. 2015 Apr 17;290(16):10126-35.

[2]. Krompholz N, et, al. The mitochondrial Amidoxime Reducing Component (mARC) is involved in detoxification of N-hydroxylated base analogues. Chem Res Toxicol. 2012 Nov 19;25(11):2443-50.

Caution: Product has not been fully validated for medical applications. For research use only.

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