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Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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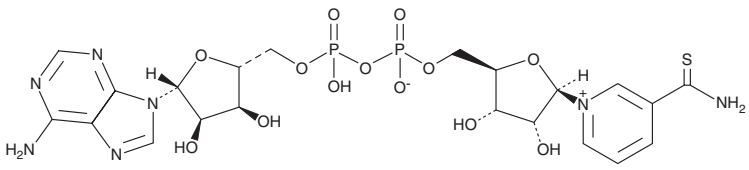
PRODUCT INFORMATION

Thio-NAD

Item No. 36466

CAS Registry No.:	4090-29-3
Formal Name:	P′→5′-ester with 3-(aminothioxomethyl)-1-β-D-ribofuranosylpyridinium adenosine 5′-(trihydrogen diphosphate), inner salt
Synonyms:	Thionicotinamide adenine dinucleotide, Thionicotinamide NAD
MF:	$C_{21}H_{27}N_7O_{13}P_2S$
FW:	679.5
Purity:	≥98%
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

Thio-NAD is supplied as a solid. Aqueous solutions of thio-NAD can be prepared by directly dissolving the solid in aqueous buffers. The solubility of thio-NAD in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Thio-NAD is a thione-modified derivative of the signaling molecule and enzyme cofactor NAD^+ (Item No. 16077).[1] It can replace NAD^+ as a cofactor in alkaline phosphatase (ALP) enzyme activity assays. Thio-NAD has been used as a substrate in dual-enzyme cycling ELISA to identify severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) spike glycoprotein, also known as surface glycoprotein, and live *M. tuberculosis* bacterium in patient sputum.[2,3] It exhibits absorbance at 405 nm, allowing it to be distinguished from other cofactors.[1]

References

1. Watabe, S., Kodama, H., Kaneda, M., *et al.* Ultrasensitive enzyme-linked immunosorbent assay (ELISA) of proteins by combination with the thio-NAD cycling method. *Biophysics (Nagoya-shi)* **10**, 49-54 (2014).
2. Kyosei, Y., Namba, M., Yamura, S., *et al.* Proposal of de novo antigen test for COVID-19: Ultrasensitive detection of spike proteins of SARS-CoV-2. *Diagnostics (Basel)* **10(8)**, 594 (2020).
3. Wang, W.-H., Takeuchi, R., Jain, S.-H., *et al.* A novel, rapid (within hours) culture-free diagnostic method for detecting live *Mycobacterium tuberculosis* with high sensitivity. *EBioMedicine* **60**, 103007 (2020).

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