

Product Information



Nitrate Reductase (LDH method)

Catalog No. 760872

Laboratory Procedures

This product has been tested and formulated to work exclusively with the Nitrate/Nitrite Colorimetric Assay Kit (LDH method) from Cayman Chemical (Catalog No. 760871). This product may not perform as described if used with other assay reagents or protocols. For long term storage, we suggest the Nitrate Reductase be stored as supplied at -20°C; it will be stable for at least six months. Reconstitute the enzyme preparation by addition of 1.2 ml of assay buffer (20 mM Potassium Phosphate, pH 7.4) and store on ice during use. If the contents of the reconstituted enzyme preparation will not be used all at once, it is recommended that aliquots be frozen at -20°C. Freezing and thawing of the solution should be limited to a single time.

This product should be used in conjunction with the NO Assay Lactate Dehydrogenase preparation (Catalog No. 760873) and NO Assay Lactate Dehydrogenase Cofactor Preparation (Catalog No. 760874) for the detection of nitrate and nitrite from biological samples or a NOS-catalyzed reaction. When converting nitrate to nitrite in the presence of 100 μ M NADPH, a 10 μ l aliquot of this product will convert approximately 5 nmoles of nitrate to nitrite in less than 30 minutes in a buffered solution in a total volume of 0.1 ml. A standard reaction consists of 60 μ l sample (appropriately diluted), 10 μ l of the Nitrate Reductase preparation, 10 μ l of 1 mM NADPH (prepared fresh), and 10 μ l LDH Cofactor Preparation. The reaction is allowed to proceed for 40 minutes at room temperature followed by addition of 10 μ l of the LDH preparation. The reaction is allowed to incubate for an additional 30 minutes. Nitrite is then quantitated by measuring the absorbance at 540 nm using Griess reagents R1 (Catalog No. 780018) and R2 (Catalog No. 780020) or by fluorescence using DAN Reagent (Catalog No. 780070) and 2.8 M NaOH (Catalog No. 780068).

Related Products

UltraPure Water - Cat. No. 400000 • 96-Well Cover Sheets - Cat. No. 400012 • 96-Well Plate (Colorimetric Assay) - Cat. No. 400014 • Nitrate/Nitrite Colorimetric Assay Kit (LDH method) - Cat. No. 760871 • NO Assay Lactate Dehydrogenase - Cat. No. 760873 • NO Assay Lactate Dehydrogenase Co-factor Preparation - Cat. No. 760874 • Nitrate Standard - Cat. No. 780014 • Griess Reagent R1 - Cat. No. 780018 • Griess Reagent R2 - Cat. No. 780020 • Nitrate/Nitrite Assay Buffer - Cat. No. 780022 • Sodium Hydroxide (2.8 M) - Cat. No. 780068 • DAN Reagent - Cat. No. 780070

WARNING: THIS PRODUCT IS NOT FOR HUMAN OR ANIMAL DISEASE DIAGNOSIS OR THERAPEUTIC DRUG USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent under separate cover to the MSDS supervisor at your institution.

WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will meet our specifications at the time of delivery.

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have **any obligation or liability**, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees.

Buyer's **exclusive remedy** and Cayman's sole liability hereunder shall be limited to a refund of the purchase price, or at Cayman's option, the replacement, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

For further details, please refer to our **Warranty and Limitation of Remedy** located on our website and in our catalog.

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Cayman Chemical

Mailing address

1180 E. Ellsworth Road
Ann Arbor, MI
48108 USA

Phone

(800) 364-9897
(734) 971-3335

Fax

(734) 971-3640

E-Mail

custserv@caymanchem.com

Web

www.caymanchem.com