

Northwest

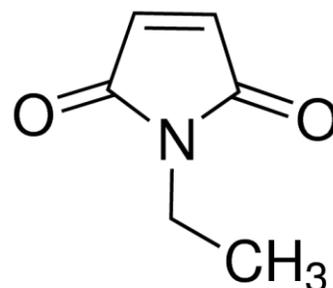
Life Science Specialties, LLC

N-ethylmaleimide (NEM) Sulphydryl/Thiol Masking Reagent

Crystalline, $\geq 98\%$ (HPLC)
CAS 128-53-0

Catalog Number: NWR-NEM060

Description: Product NWR-NEM01, N-ethylmaleimide (NEM) is sold as a sulphydryl masking reagent. It can be used to render thiol containing reduced glutathione (GSH) unreactive when testing for oxidized glutathione (GSSG). When used as directed, this product provides sufficient NEM to treat 100 samples in preparation for assay of GSSG using NWLSS™ NWK-GSSG01 Assay kit or similar product type.



Specificity: Sulphydryl (thiol) masking reagent

Contents/Format: NEM Reagent: 1 x 60 mg, crystalline, $\geq 98\%$ (HPLC)

NEM Diluent: 1 x 2 mL reagent grade ethanol.

Reagent Preparation: Add entire contents of NEM Diluent to NEM Reagent to dissolve crystals.

Suggested Use: Proper masking of reduced GSH requires immediate (if possible) treatment of samples with NEM in approximate 10 fold molar excess compared to expected sample GSH. Failure to treat samples in a timely manner allows for artifact GSH oxidation to occur leading to overestimation of GSSG.

If using with NWLSS™ GSSG or NWLSS™ GSH_t/GSSG Assay kits, sample specific instructions for use can be found in the associated product inserts.

Note: Excess NEM must be removed by extraction prior to assaying for GSSG.

Storage/Stability: Refrigerate upon arrival.

References:

1. Smyth, D.G., et al. (1960). Reactions of N-ethylmaleimide. *J Am Chem Soc* 82:4600-4
2. Calingasan et al. (1999) *J. of Neurochemistry* 72(2):751-756.
3. Rossi, R et al, Blood glutathione disulfide: in vivo factor or in vitro artifact? *Clin. Chem.* 48(5):742-753; 2002.
3. Rossi et al., Oxidized Forms of Glutathione in Peripheral Blood as Biomarkers of Oxidative Stress. *Clin. Chem.* 52:7: 1406-1414; 2006.

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