Anti-Glutathione NEM



TECHNICAL SPECIFICATIONS

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Mouse Anti-Glutathione NEM Monoclonal Antibody Product #: SPA-540

Immunogen

Glutathione alkylated with N-ethyl maleimide (NEM) and conjugated to keyhole limpet hemocyanin (KLH) (1).

Specificity

This antibody reacts with glutathione conjugated to NEM in human peripheral blood mononuclear cells when tested by immunofluorescence (1). It reacts with reduced glutathione, but not with oxidized glutathione in a glutathione-NEM inhibition ELISA (1).

Species Reactivity

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All mammalian cells

Applications		Certifiea*	Citea
	ELISA (1)	50ng/ml	
	Immunocytochemistry (1)	100 μg/mL	1:10
	Flow Cytometry (1)	10 ug/mL	10 ug/mL

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Scientific Background

Glutathione is a tripeptide (γ -glutamylcysteinylglycine) molecule found in most mammmalian cells. It functions in basic metabolic processes such as serving as a sulfydryl buffer to maintain redox within the cell, participating in the transport of amino acids and detoxifying hydrogen and organic peroxides (2). Glutathione depletion can inhibit Th-1 associated cytokine production and favors a Th-2 associated immune response (3). Glutathione deficiency has also been linked to decreased patient survival in HIV-infected individuals (4). Overexpression of apoptotic protein Bcl-2 causes relocalization of glutathione from the cytoplasm into the nucleus where glutathione is thought to alter the redox and block caspase activity (5).

References

- Messina, J.P., Mazurkiewicz, J., and Lawrence, D.A. (1987) Anticarcinogenesis and Radiation Protection (Eds. Cerutti, P.A., Nygaard, O.F., and Simic, M.G.) Plenum Publishing Corp, pp. 407-412.
- 2. Stryer, L (1988) Biochemistry W.H. Freeman and Co., pp. 593-593.
- Peterson, J.D., Herzenberg, L.A., Vasquez, K., and Waltenbaugh, C. (1998) PNAS 95: 3071-3076.
- Herzenberg, L.A., DeRosa, S.C., Dubs, J.G., Roederer, M., Anderson, M.T., Ela, S.W., Deresinski, S.C., and Herzenberg, L.A. (1997) PNAS 94: 1967-1972.
- Voehringer, D.W., McConkey, D.J., McDonnell, T.J., Brisbay, S., and Meyn, R.E. (1998) PNAS 95: 2956-2960

Rev: 02/22/06

CERTIFICATE OF ANALYSIS

Anti-Glutathione NEM

Product #: SPA-540

Lot #:

Format: Mouse immunoglobulin in phosphate buffered saline

(PBS), pH 7.2, containing 0.1mM PMSF.

Concentration: 1.4 mg/mL

Host:MouseAntibody Type:MonoclonalClone#:8.1 GSHIsotype: IgG_1

Certification: The sensitivity of SPA-540 was determined by

measuring the ability of GS-NEM to inhibit binding of the antibody to BSA-GS-NEM coated ELISA plates.

 Certified by:
 A. Rodriguez
 QC by:
 C. Pastula

 Date:
 08/11/99
 Date:
 07/26/99

STORAGE & SHIPPING: Store frozen product at or below -20°C. Thawed product may be stored for 2-4 weeks at 4°C. For optimal storage, aliquot to smaller portions and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles. For maximum product recovery, after thawing, centrifuge the product vial before removing cap. Shipped on gel packs.



FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES: This product is not to be used for diagnostic nor herapeutic purposes. By accepting this product, the user confirms that it will be used for research purposes only. Stressgen warrants that its products conform to the information published by Stressgen. Purchaser must determine the suitability of the product for their particular use. Please refer to the MSDS for product safety information.

^{*}These working dilutions are provided as suggestions only. Further dilutions may be possible. Each user should determine the optimal conditions for their own particular experiment.

MATERIAL SAFETY DATA SHEET

Section 1 - Product Identification and Use

Product Name: Mouse Anti-Glutathione-NEM Monoclonal Antibody Product# SPA-540

This product is sold only for research use by qualified laboratory personnel, and is not to be used as a drug, medical device, food additive, cosmetic, nor household chemical. It is not to be used in diagnostic, therapeutic, consumer, agricultural, nor pesticidal applications.

Manufacturer's Name: Stressgen Biotechnologies Corp.
Street Address: 120-4243 Glanford Avenue

City, Prov. Postal Code: Victoria, B.C., CANADA V8Z 4B9

Fax: (250) 744-2877 EMERGENCY PHONE: (250) 744-2811

Section 2 - Hazardous Ingredients

NOT AVAILABLE. We are not aware of any hazards associated with this product or its ingredients, but the chemical, physical, and toxicological properties of this product have not been investigated thoroughly. Observe normal laboratory precautions.

Section 3 - Physical Data

This product consists of mouse immunoglobulin in PBS, containing 0.1mM PMSF shipped on gel packs (dry ice overseas). The physical properties of this product have not been investigated thoroughly.

Section 4 - Fire and Explosion Hazard

NOT APPLICABLE

Section 5 - Reactivity Data

NOT APPLICABLE

Section 6 - Toxicological Properties

May be harmful by inhalation, ingestion, or skin absorption. The toxicological properties of this product have not been investigated thoroughly. Exercise due caution.

Section 7 - Preventative Measures

Wear chemical safety goggles and compatible chemical-resistant gloves. Avoid inhalation, contact with eyes, skin or clothing.

*****MULTIPLE COMPONENT SPILL OR LEAK PROCEDURES****

- Wear protective equipment.
- Absorb on sand or vermiculite and place in closed containers for disposal.
- Dispose or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state and local environmental regulations.

Section 8 - First Aid Measures

- If swallowed, wash out mouth with water, provided person is conscious. Call a physician.
- In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. If a rash or other irritation develops, call a physician.
- If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.
- In case of eye contact, flush with copious amounts of water for at least 15 minutes while separating the eyelids with fingers. Call a physician.

Section 9 - Preparation

Prepared by:	Phone#:	Created:	Modified:	
SBC	(250) 744-2811	07/05/99	8/11/99	

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Stressgen shall not be held liable for any damage resulting from handling or from contact with the above product. See the Technical Specification, Packing Slip, Invoice, and Product Catalogue for additional terms and conditions of sale.