
ABOUT US

Molecular Toxicology, Inc. is the leading manufacturer of products used in the Salmonella and E. coli WP2 mutagenicity tests. Molttox minimal glucose agar plates, top agars, Salmonella and E. coli tester strains, frozen and lyophilized S9, MUTAZYME™, NADPH-regenerating systems and positive control chemicals are distributed worldwide. Molttox has developed microtiter plate format fluctuation tests consistent with OECD guidelines including Molttox® FT™ tests and distributes the BioReliance Ames II™ test kit.

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Molecular Toxicology, Inc.

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MOLTOX®
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MUTAZYME™

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Composition

MUTAZYME™ consists of Aroclor 1254-induced male SD rat liver S9 that has been freeze dried with NADP, D-glucose-6-phosphate, MgCl₂, KCl in pH7.4 sodium phosphate buffer. After reconstitution, the resultant S9 Mix cofactor solution is as described by Maron and Ames (Mutat res, 113:173-215, 1983). MUTAZYME™ 5% and 10% S9 Mix may be directly used in standard plate incorporation assays. 30% S9 Mix products were specifically developed for use in microtiter fluctuation tests (e.g., Molttox® FT™ tests).

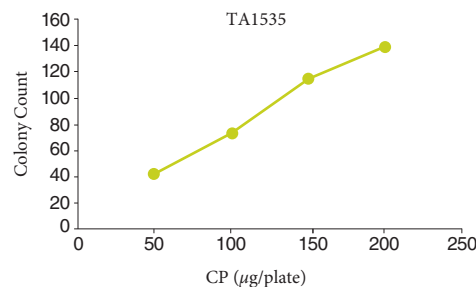
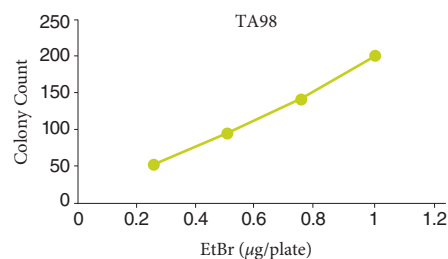
MUTAZYME™ products:

PART #	DESCRIPTION
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11-403	MUTAZYME 5% S9 Reconstitutes to 20mL 5% S9 Mix
11-402	MUTAZYME 10% S9 Reconstitutes to 20mL 10% S9 Mix
11-401.3	MUTAZYME 30% S9 Reconstitutes to 3.25mL 30% S9 Mix
11-401.6	MUTAZYME 30% S9 Reconstitutes to 6.5mL 30% S9 Mix

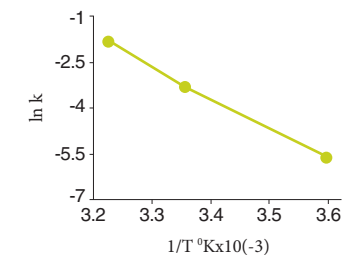
Activity

MUTAZYME™ products are subjected to the same Quality Control analyses as Molttox's standard frozen and lyophilized S9. Each lot is accompanied by product data sheets, which include the results of bioassay and biochemical analyses, such as alkoxyresorufin-0-dealkylase activities, total protein content, S9 titrations vs. treatments of TA100 with B(a)P and 2-AA, TA1535 and TA98 responses to CP and EtBr.



Stability

The stability of MUTAZYME™ was evaluated by conducting accelerated ageing studies at temperatures ranging between -20°C (the recommended storage temperature) and +50°C. Shelf life was estimated using an Arrhenius model (Kirkwood, T, Biometrics, 33:736-742, 1977; Anderson, G and M Scott, Clin Chem, 37:396-402, 1991). The results indicated that > 95% of the original activity can be expected after 1 year storage at -20°C.



Advantages

- MUTAZYME™ is complete and ready to use after reconstitution with cold sterile purified water. No secondary reagents/solutions are required.
- MUTAZYME™ can be stored in an ordinary -20°C freezer – an ultralow is not required.
- MUTAZYME™ is completely characterized and contains the S9 and NADPH-regenerating system recommended by Maron and Ames (Mutat res, 113:173-215, 1983).