

Title	Mutagenicity of alkylhydrazine oxalates in salmonella typhimurium TA100 and TA102 demonstrated by modifying the growth conditions of the bacteria
Sub Title	
Author	松下, 洋久(Matsushita, Hirohisa) 遠藤, 治(Endo, Osamu) 松下, 秀鶴(Matsushita, Hidetsuru) 山本, 雅子(Yamamoto, Masako) 望月, 正隆(Mochizuki, Masataka)
Publisher	共立薬科大学
Publication year	1993
Jtitle	共立薬科大学研究年報 (The annual report of the Kyoritsu College of Pharmacy). No.38 (1993.) ,p.73- 73
JaLC DOI	
Abstract	
Notes	抄録
Genre	Technical Report
URL	https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=AN00062898-00000038-0073

慶應義塾大学学術情報リポジトリ(KOARA)に掲載されているコンテンツの著作権は、それぞれの著作者、学会または出版社/発行者に帰属し、その権利は著作権法によって保護されています。引用にあたっては、著作権法を遵守してご利用ください。

The copyrights of content available on the Keio Associated Repository of Academic resources (KOARA) belong to the respective authors, academic societies, or publishers/issuers, and these rights are protected by the Japanese Copyright Act. When quoting the content, please follow the Japanese copyright act.

Mutagenicity of Alkylhydrazine Oxalates in *Salmonella typhimurium* TA 100 and TA 102 Demonstrated by Modifying the Growth Conditions of the Bacteria

Hirohisa MATSUSHITA Jr., Osamu ENDO**, Hidetsuru MATSUSHITA**,
Masako YAMAMOTO and Masataka MOCHIZUKI

松下洋久, 遠藤 治**, 松下秀鶴**, 山本雅子, 望月正隆

Alkylhydrazines are important carcinogens. However, they show generally only weak mutagenicity and the activities reported from different laboratories are contradictory. We have developed a sensitive method to detect the mutagenicity of alkylhydrazines. The method is based on a modified preculturing procedure in the Ames test, the emphasis in the modification being a change in the growth period of tester strains. The optimal growth periods were found to be 11 h in *Salmonella typhimurium* TA 100 and 5 h in *Salmonella typhimurium* TA 102. We tested the mutagenic activity of 12 alkylhydrazines; 1,2-dimethylhydrazine, 1,2-diethylhydrazine, 1,2-dipropylhydrazine, 1,2-dibutylhydrazine, 1,1-dimethylhydrazine, 1,1-diethylhydrazine, 1,1-dipropylhydrazine, 1,1-dibutylhydrazine, methylhydrazine, ethylhydrazine, propylhydrazine, and butylhydrazine. All 12 alkylhydrazines were clearly mutagenic in *Salmonella typhimurium* TA 102, and 10 hydrazines were mutagenic in *Salmonella typhimurium* TA 100, both in the absence of S9 mix. The mutagenicity was inhibited by the addition of S9 mix or bovine serum albumin. This suggests deactivation of the mutagens by proteins.

* 本報告は *Mutation Res.*, 301, 213—222 (1993) に発表。

** 国立公衆衛生院