慶應義塾大学学術情報リポジトリ
Keio Associated Repository of Academic resouces

Title	Characterization of directly acting mutagens produced from N-nitroso-N-(formylmethyl) alkylamines : their possible involvement in the carcinogenesis of N-nitrosamines having a 2-hydroxyethyl group
Sub Title	
Author	鈴木, 恵真子(Suzuki, Emako) 長部, まり子(Osabe, Mariko) 望月, 正隆(Mochizuki, Masataka) 若林, 由子(Wakabayashi, Yuko) 岡田, 正志(Okada, Masashi)
Publisher	共立薬科大学
Publication year	1988
Jtitle	共立薬科大学研究年報 (The annual report of the Kyoritsu College of Pharmacy). No.33 (1988.) ,p.167- 167
JaLC DOI	
Abstract	
Notes	抄録
Genre	Technical Report
URL	https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=AN00062898-00000033-0167

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.

Characterization of Directly Acting Mutagens Produced from *N*-Nitroso-*N*-(formylmethyl) alkylamines : Their Possible Involvement in the Carcinogenesis of *N*-Nitrosamines Having a 2-Hydroxyethyl Group*

Emako SUZUKI**, Mariko OSABE**, Masataka MOCHIZUKI, Yuko, WAKABAYASHI**, and Masashi OKADA**

鈴木恵真子**, 長部まり子**, 望月正隆,
若林由子**, 岡田正志**

Directly acting mutagens formed from *N*-nitroso-*N*-(formylmethyl) alkylamines (**3**) were isolated and identified as *N*-nitroso-*N*-alkyl-1-hydroxyimino-2-oxoethylamines (**4**). Their structures were elucidated on the basis of nuclear magnetic resonance spectra and confirmed by derivatization to the crystalline 2,4-dinitrophenylhydrazones (**5**). Compounds **4** (alkyl = ethyl and butyl) were strongly mutagenic to *Salmonella typhimurium* TA1535 and *Escherichia coli* WP2 *hcr*$^-$ without metabolic activation, while **4** with a tert-butyl group was not mutagenic. The formation of **4** is considered to proceed by the nitrosation of **3**, indicating a possible involvement of the formylmethyl metabolite in carcinogenesis by N-nitrosamines with a 2-hydroxyethyl group.

* 本報告は *Chem. Pharm. Bull.* **35** (10), 4022—4030 (1987) に発表.
** 東京生化学研究所.