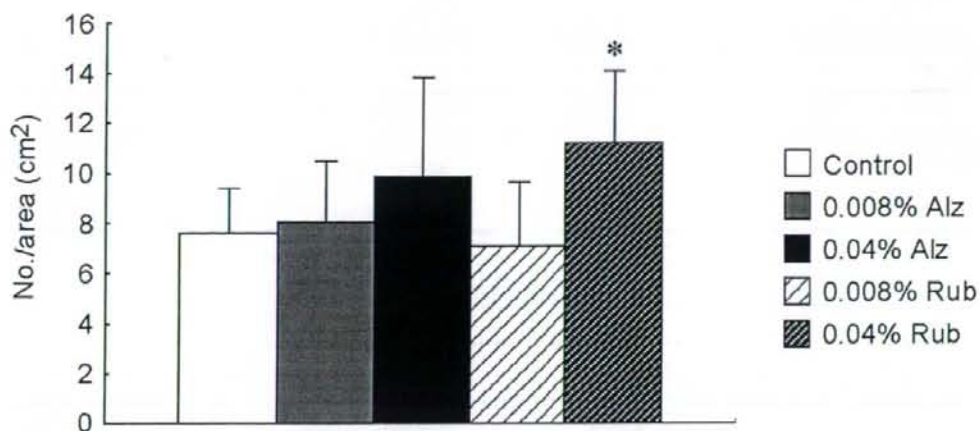


Fig. 6
Representative proliferative lesions in the kidney of rats treated with Alz or Rub in a medium-term multi-organ carcinogenesis bioassay. (a) atypical tubule; (b) atypical hyperplasia; (c) adenoma; (d) carcinoma.

(a)



(b)

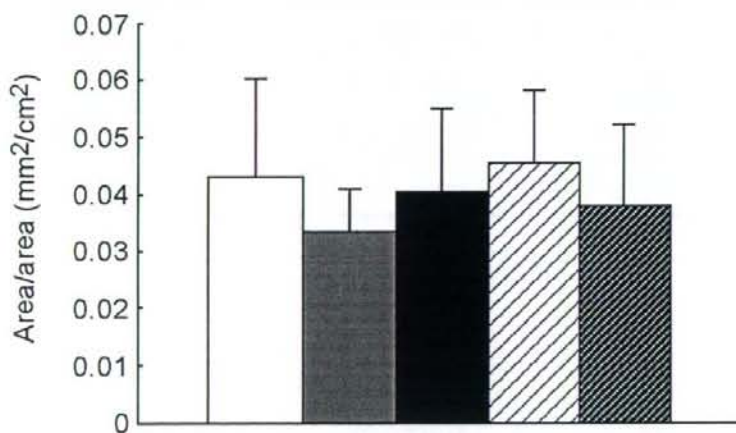


Fig. 7

Number (a) and multiplicity (b) of GST-P-positive foci in the liver of rats treated with Alz or Rub in a medium-term multi-organ carcinogenesis bioassay

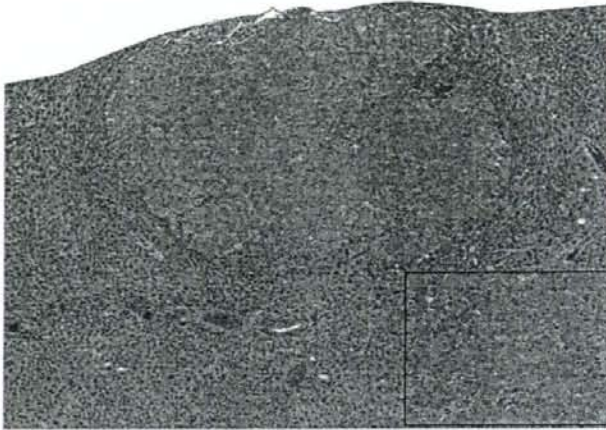


Fig. 8
Hepatocellular adenoma in a rat treated with 0.04% Rub in a medium-term multi-organ carcinogenesis bioassay

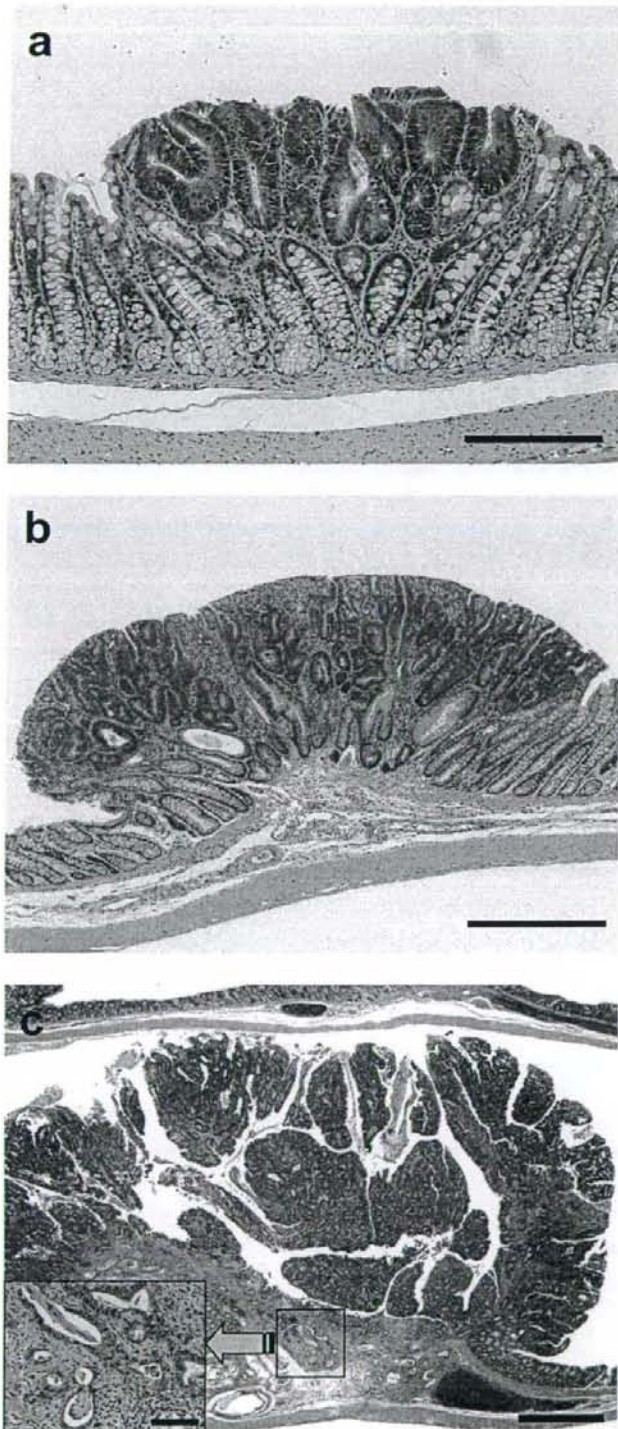


Fig. 9
Representative proliferative lesions in the large intestine of rats treated with Alz or Rub in a medium-term multi-organ carcinogenesis bioassay. (a) dysplasia; (b) adenoma; (c) adenocarcinoma.

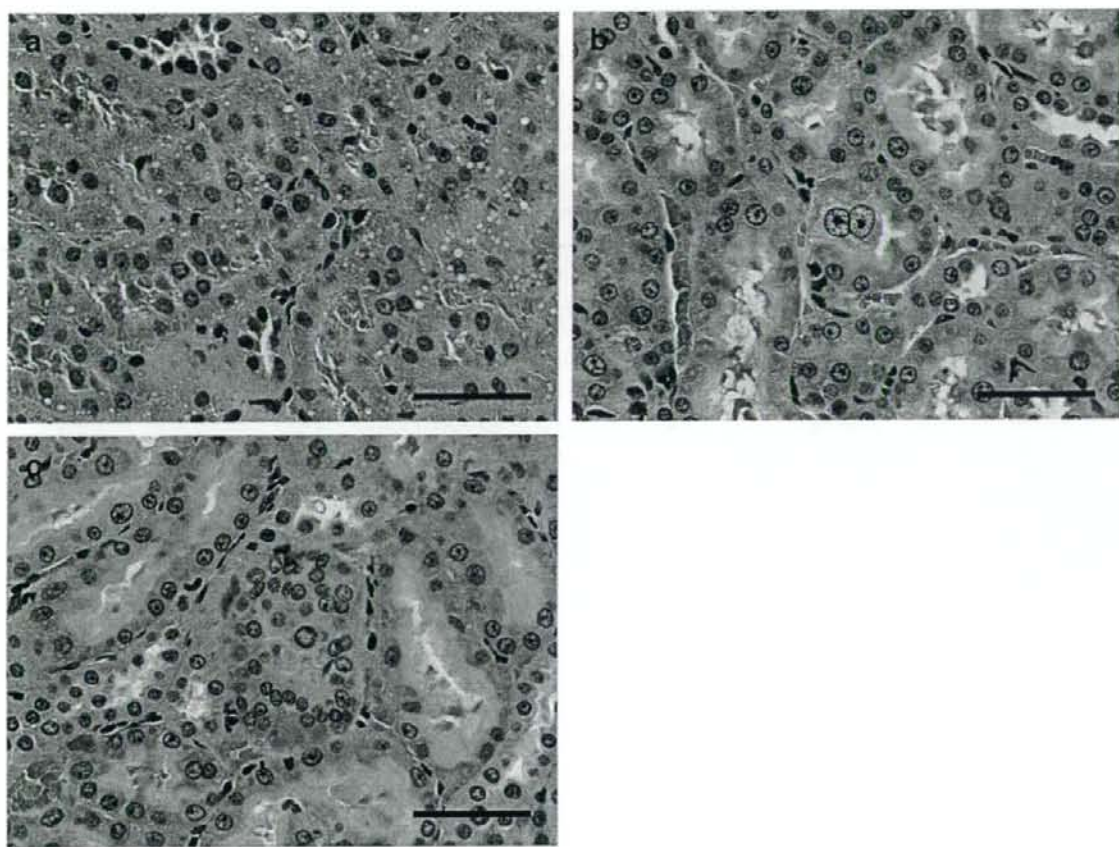


Fig. 10
Representative lesions in the kidney of rats treated with Alz or Rub for 26 weeks.
(a) Vacuolar degeneration; (b) karyomegaly; (c) atypical tubule.

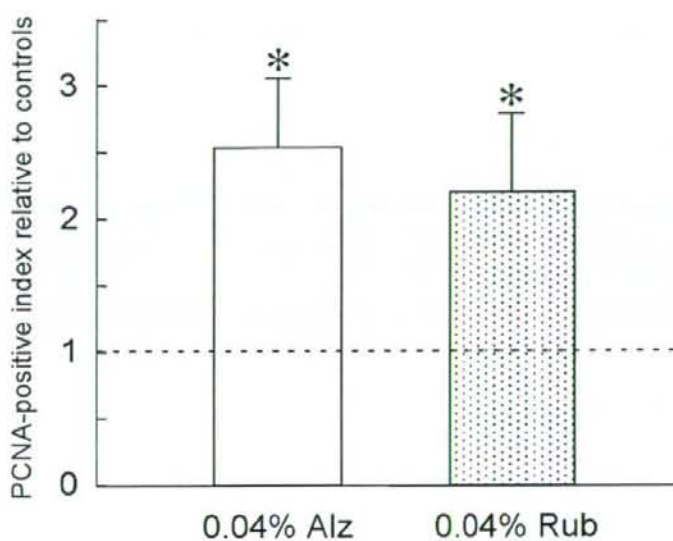


Fig. 11
PCNA-positive indices relative to control values in the proximal tubule cells of the outer medulla in the kidney of rats treated with Alz or Rub for 26 weeks. *: $p < 0.01$.

研究成果の刊行に関する一覧表レイアウト (参考)

書籍

著者氏名	論文タイトル名	書籍全体の 編集者名	書 籍 名	出版社名	出版地	出版年	ページ
	該当なし						

雑誌

発表者氏名	論文タイトル名	発表誌名	巻号	ページ	出版年
<u>Inoue K.</u> , Yoshida M., Takahashi M., Fujimoto H., <u>Shibutani M.</u> , Hirose M., <u>Nishikawa A.</u>	Carcinogenic potential of alizarin and rubiadin, components of madder color, in a rat medium-term multi-organ bioassay	submitted			
<u>Inoue K.</u> , Yoshida M, Takahashi M, Fujimoto H, Ohnishi K, Nakashima K, <u>Shibutani M.</u> , Hirose M, <u>Nishikawa A.</u>	Possible contribution of rubiadin, a metabolite of madder color, to renal carcinogenesis in rats.	Food Chem Toxicol.	47	752-759	2009
<u>Inoue, K.</u> , Yoshida, M., Takahashi, M., <u>Shibutani, M.</u> , Takagi, H., Hirose, M., <u>Nishikawa, A.</u>	Induction of kidney and liver cancers by the natural food additive madder color in a two-year rat carcinogenicity study.	Food Chem. Toxicol.	47	184-191	2008

<u>Inoue, K.</u> , <u>Shibutani, M.</u> , Masutomi, N., Toyoda, K., Takagi, H., Takahashi, M., Fujimoto, H., Hirose, M., <u>Nishikawa A.</u>	One-year chronic toxicity of madder color in F344 rats—induction of preneoplastic/neoplastic lesions in the kidney and liver.	Food Chem. Toxicol.	46	3303-3310	2008
<u>Inoue, K.</u> , <u>Shibutani, M.</u> , Masutomi, N., Toyoda, K., Takagi, H., Uneyama, C., Hirose, M.	A 13-week subchronic toxicity study of madder color in F344 rats.	Food Chem. Toxicol.	46	241-252	2008