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Table 1. *H. pylori* infection induced-gastritis in MGs.

Group	Treatment	Effective No.	Stomach wet weight (g)	Inflammation score
A	Broth	15	0.647 ± 0.097	0
B	NIAN + Broth	22	0.631 ± 0.094	0
C	*H. pylori*	18	1.432 ± 0.445*	2.22 ± 0.43*
D	NIAN + *H. pylori*	26	1.483 ± 0.445*	2.38 ± 0.64*

*P<0.01 vs. group A and B; Values for results are expressed as averages ± SD.

Table 2. Incidence of glandular stomach adenocarcinoma in MGs.

Group	Treatment	Effective No.	No. of animals with glandular stomach adenocarcinoma (%)		
			Total	Well dif.	Moderately dif.
A	Broth	15	0 (0)	0 (0)	0 (0)
B	NIAN + Broth	22	0 (0)	0 (0)	0 (0)
C	*H. pylori*	18	0 (0)	0 (0)	0 (0)
D	NIAN + *H. pylori*	26	8 (31)*	7 (27)	1 (4)

Well dif., well differentiated adenocarcinoma; Moderately dif., moderately differentiated adenocarcinoma.

*$P<0.05$ vs. group A and C, and $P<0.01$ vs. group B.

Figure Legends

Figure 1. Chemical structure of NAIN and experimental protocol for the carcinogenicity study. (A) Chemical structure of NIAN. (B) Male six-week-old MGs were orally administered NIAN (100 mg/kg) in 50% DMSO (groups B and D) or 50% DMSO alone (groups A and C) two times a week for three weeks. One week after the final administration, the animals were inoculated with *H. pylori* (ATCC 43504) (groups C and D) or sterilized broth (groups A and B).

Figure 2. Autoradiograms of NIAN-DNA adducts in glandular stomach of MGs or calf thymus DNA treated with NIAN. Adducts were analyzed by ^{32}P-postlabeling method, as described in the Materials and Methods. DNA samples were isolated from glandular stomach of MGs (A) or calf thymus DNA (B) after treatment with NIAN. DNA samples were also prepared from glandular stomach of MGs without NIAN treatement (C). Arrowheads indicate adducts.

Figure 3. Macro- and microscopic views of gastritis in MGs infected or uninfected with *H. pylori*. (A) Normal gastric mucosa

in group A. (B) Severe infiltration of many inflammatory cells with development of heterophilic proliferative glands in group C; H&E staining x 40. Yellow boxes are shown at greater magnification below. x 200.

Figure 4. Histological findings of gastric adenocarcinoma in the animals treated with both NIAN and *H. pylori*. (A) Typical macrograph of a stomach. The yellow circle shows the suspected lesion of gastric cancer. (B) Well differentiated adenocarcinoma. (C) Moderately differentiated adenocarcinoma. (B,C) H&E staining x 400.

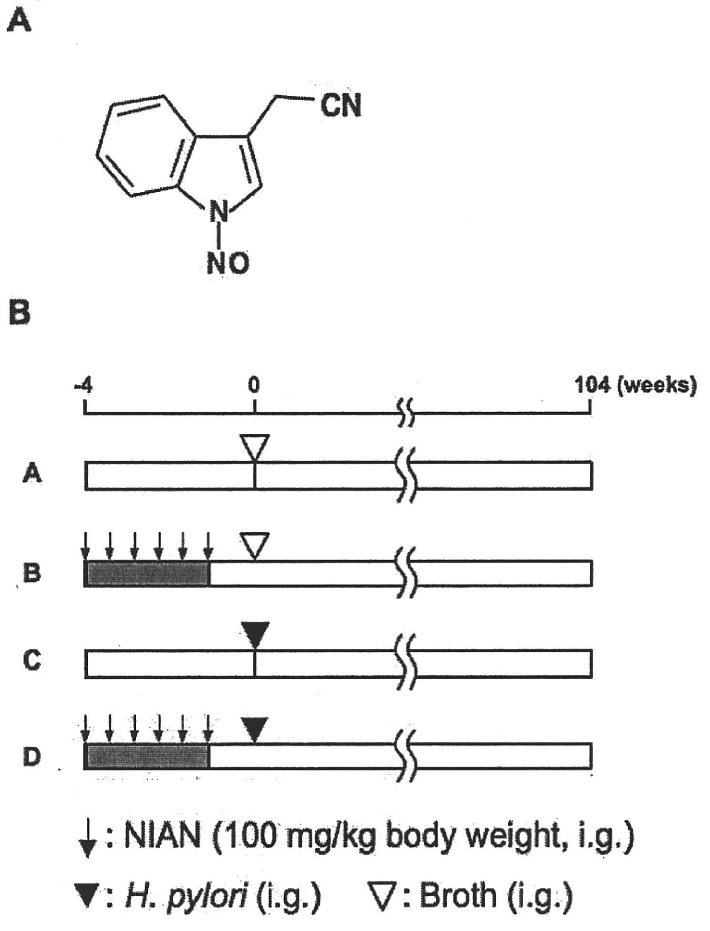
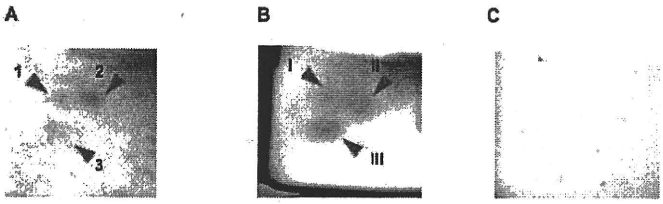


Figure 1

Figure 2



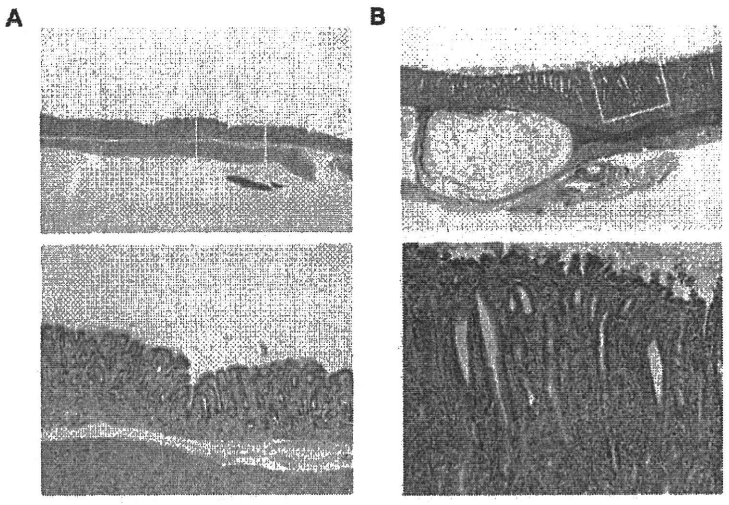


Figure 3

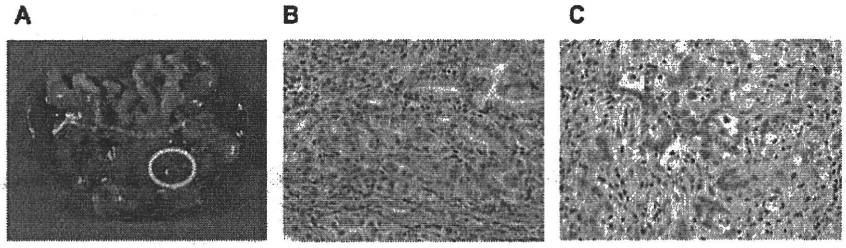


Figure 4