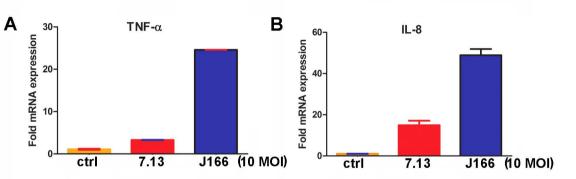
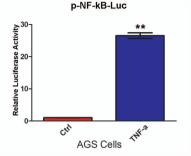
#### Supplemental Figure 1. H. pylori infection induces TNF- $\alpha$ and IL-8 expression



A-B) The qRT-PCR analysis of TNF- $\alpha$  and IL-8 was performed in AGS cells with H. pylori infection.

Supplemental figure 01, Zhu et al.

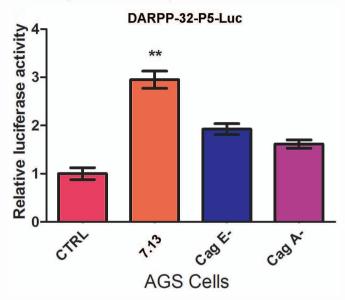
#### Supplemental Figure 2. TNF-α activates NF-κB



Luciferase reporter assay for p-NF- $\kappa$ B-luc in AGS cells with TNF- $\alpha$  treatment.

Supplemental figure 02, zhu et al.

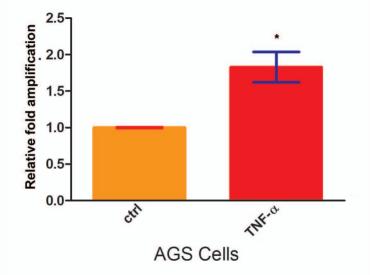
### Supplemental Figure 3. H. pylori infection regulates DARPP-32 promoter activity



Luciferase reporter assay for DARPP-32-P5-luc in AGS cells co-cultured with H. pylori 7.13 strains (wildtype, cagA- and cagE- mutants).

Supplemental figure 03, zhu et al.

### Supplemental Figure 4. TNF- $\alpha$ enhances NF- $\kappa$ B binding to DARPP-32 promoter

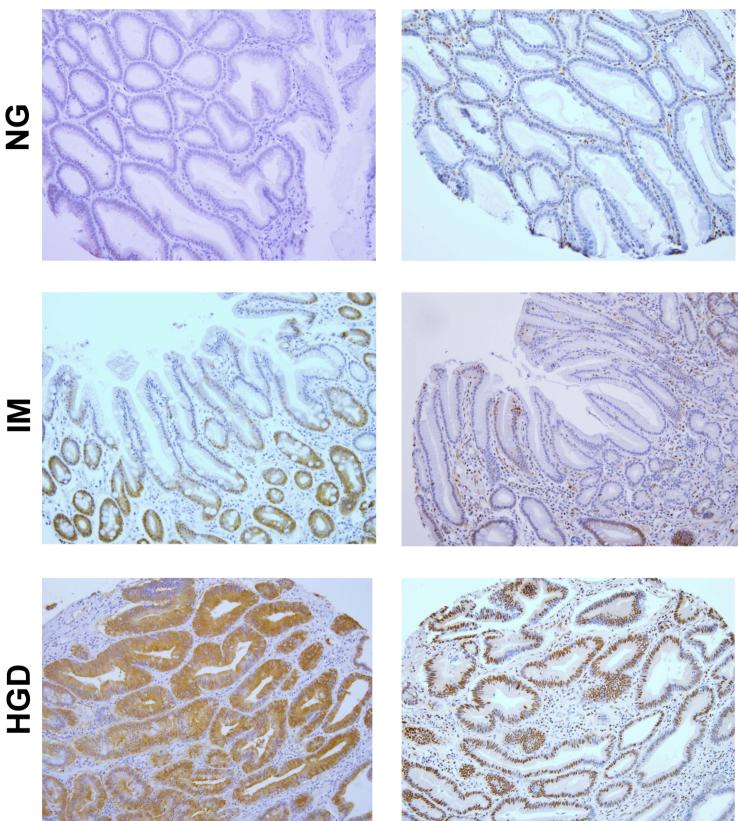


ChIP assay using a specific antibody against NF-kB-p65 for immunoprecipitation of formaldehyde-fixed chromatin in AGS cells with control or TNF-a treatment. qRT-PCR was performed using primers designed to amplify the NF-kB-p65 binding site on DARPP-32 promoter region.

Supplemental figure 04, zhu et al.

### **DARPP-32**



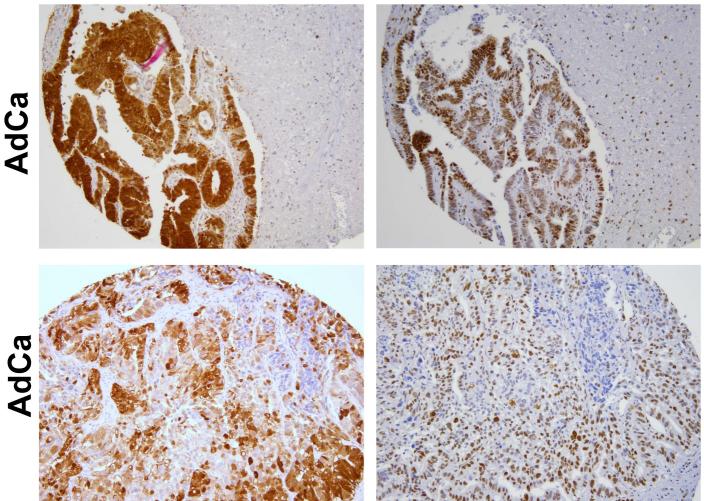


A) Immunohistochemical staining of DARPP-32 and NF-kB in serial tissue samples from human gastric mucosa with normal histology (NG), intestinal metaplasia (IM), and high-grade-dysplasia (HGD).

Supplemental figure 05, zhu et al.

## **DARPP-32**

# p-NF-κB



B) Immunohistochemical staining of DARPP-32 and NF-kB in serial tissue sections from human gastric mucosa showing intestinal-type (upper panels) and diffuse-type (lower panels) adenocarcinomas.

Supplemental figure 05, zhu et al.