Supplemental Figure 1. Relationship of *FBXW7* mRNA and FBXW7 protein expression.

Supplemental Figure 2. Relationship between *FBXW7* mRNA expression and clinical stage in gastric cancer patients.

Supplemental Figure 3. The distribution of FBXW7 isoforms in a human cDNA tissue panel.

The distribution of expressions of *FBXW7* and *p53* was examined in a human cDNA tissue panel. The alpha isoform is expressed in most tissues including stomach, however, the beta isoform and the gamma isoform deviated specifically in the brain/testis and the heart/muscle, respectively. Therefore a significant correlation between *p53* expression and *FBXW7* alpha expression was observed in normal cells (*p* = 0.0149), however, we could not detect a correlation between other isoforms and *p53* expression.
Supplemental Figure 4. Kaplan-Meier overall survival curves of gastric cancer patients according to the expression levels of FBXW7 isoforms.

Supplemental Figure 5. Relationship between p53 and FBXW7 mutation rate and clinical stage in gastric cancer patients.

Supplemental Figure 6. The expression levels of FBXW7 isoforms in p53 siRNA AZ521 cells.

A. Reduced p53 expression was confirmed by quantitative RT-PCR analyses in p53 siRNA cells compared with parent AZ521 and control siRNA cells. p53 expressions were normalized by GAPDH. The data represent the mean ± s.d.

B. Western blot analysis of p53 in p53 siRNA, control siRNA. The protein level of p53 was reduced in p53 siRNA cells compared with control siRNA cells. These proteins were normalized to the level of β-actin.

C. The expression levels of FBXW7 isoforms (alpha, beta and gamma) were
examined in \( p53 \) siRNA cells, control siRNA and parent AZ521 cells. The expression levels of \( FBXW7 \) isoforms were reduced in \( p53 \) siRNA cells. \( FBXW7 \) isoforms expressions were normalized by \( GAPDH \). The data represent the mean ± s.d. When three groups were compared, the ANOVA and Tukey's test were used (\( p < 0.05 \) was considered significant).

**Supplemental Figure 7. Immunohistochemical analysis of FBXW7, Myc and Cyclin E in representative gastric cancer tissues.**

A. Myc and Cyclin E expression levels were enhanced in a representative FBXW7 low expression tissue.

B. Myc and Cyclin E expression levels were suppressed in a representative FBXW7 high expression tissue.

Immunohistochemical analysis of FBXW7, Myc and CyclinE was performed in the sequential adjacent tissues from 15 gastric cancer samples. Fourteen cases demonstrated a similar pattern in Supplement Figure 7, while only one case showed strong
expressions of FBXW7 and CyclinE simultaneously.

The avidin-biotin-peroxidase method (LSAB kit; DAKO, Kyoto, Japan) was applied to detect the signal of the antigen-antibody reaction. All sections were counterstained with haematoxylin. The antibodies against FBXW7 (1:100) (Abnova), Myc (1:50) and Cyclin E (1:50) (Santa Cruz Biotechnology Inc., CA, USA) were used.