**Supplementary Table S1. Patient characters of gastric cancer**

| Clinicopathological parameters | Categories | n=118 |
|---|---|---|
| Age | - | 70.4 ± 10.0 |
| Gender | male | 69 (58.5%) |
| | female | 49 (41.5%) |
| Laparoscopic approach | - | 41 (34.7%) |
| Operatation procedures | Proximal gastrectomy (PGR) | 2 (1.7%) |
| | Distal gastrectomy (DGR) | 77 (65.3%) |
| | Pyrolus preserving gastrectomy(PPG) | 4 (3.4%) |
| | Total gastrectomy (TGR) | 35 (29.7%) |
| Lymph node dissection | D0 | 1 (0.9%) |
| | D1 | 15 (12.7%) |
| | D1+ | 47 (39.8%) |
| | D2 | 55 (46.6%) |
| ASA physical status classification | I | 30 (25.4%) |
| | II | 79 (66.1%) |
| | III | 10 (8.5%) |
| Location | Upper | 22 (18.6%) |
| | Middle | 43 (36.4%) |
| | Lower | 53 (44.9%) |
| Tumor size (mm) | - | 50.8 ± 30.0 |
| Multicentric cancer | - | 5 (4.2%) |
| Macroscopic type (pathological) | 0 | 45 (38.1%) |
| | 1 | 4 (3.4%) |

| | | |
|---|---|---|
| | 2 | 35 (29.7%) |
| | 3 | 21 (17.8%) |
| | 4 | 9 (7.6%) |
| | 5 | 4 (3.4%) |
| Lymphatic permeation | ly0 | 34 (28.8%) |
| | ly1 | 46 (39.0%) |
| | ly2 | 23 (19.5%) |
| | ly3 | 15 (12.7%) |
| Vascular permeation | v0 | 45 (38.1%) |
| | v1 | 32 (27.1%) |
| | v2 | 27 (22.9%) |
| | v3 | 14 (11.9%) |
| Postoperative adjuvant therapy | - | 47 (39.8%) |
| JGCA 14th T factor | pT1a | 14 (11.9%) |
| | pT1b | 36 (30.5%) |
| | pT2 | 16 (13.6%) |
| | pT3 | 23 (19.5%) |
| | pT4a, pT4b | 29 (24.6%) |
| JGCA 14th N factor | pN0 | 59 (50.0%) |
| | pN1 | 21 (17.8%) |
| | pN2 | 14 (11.9%) |
| | pN3 | 24 (20.3%) |
| JGCA 14th pStage | Ia | 37 (31.4%) |
| | Ib | 15 (12.7%) |
| | IIa | 17 (14.4%) |
| | IIb | 13 (11.0%) |
| | IIIa | 3 (2.5%) |
| | IIIb | 9 (7.6%) |
| | IIIc | 7 (5.9%) |
| | IV | 17 (14.4%) |

Values are presented as mean ± standard deviation or number (%).

ASA; American Society of Anesthesiologists , JGCA; Japanese Classification of Gastric Cancer.

Supplementary Table S2

Number of GC patients with *CT83* expression at non-tumor sites

| GC patients | Total | Positive | Negative | Positive rate (%) | | |
|---|---|---|---|---|---|---|
| Total | 118 | 69 | 49 | 58.5 | | |
| Two sites sampled | 57 | 32 | 25 | 56.1 | | p=0.8517 |
| Hp (+) | 47 | 28 | 19 | 59.6 | | p=0.7838 |
| Hp (−) | 10 | 4 | 6 | 40.0 | | |
| Four sites sampling | 61 | 37 | 24 | 60.7 | | |
| Hp (+) | 44 | 28 | 16 | 63.6 | | p=0.5611 |
| Hp (−) | 17 | 9 | 8 | 52.9 | | |

GC patients were divided into two groups with two and four regions of non-tumor sites sampled each. CT83, Kita-Kyushu lung cancer antigen-1; GC, gastric cancer

Supplementary Table S3

*CT83* expression of non-tumorous stomach among GC patients sampled at two regions

| Sampling sites | *CT83* expression | | | |
|---|---|---|---|---|
| | Positive | Negative | Positive rate (%) | |
| L and M each | 17 | 5 | 77.3 | p = 0.0276 |
| Others | 16 | 19 | 45.7 | |

CT83, Kita-kyushu lung cancer antigen-1; GC, gastric cancer; L, lower corpus; M, middle corpus.

Supplementary Table S4

Non-GC patients with gastric atrophy and *CT83* expression

| Non-GC No. | Age | Gender | Hp infection (RUT) | Kimura-Takemoto classification | Duration of GC occurrence after CT83 measure (month) | Remarks |
|---|---|---|---|---|---|---|
| 001 | 51 | M | Positive | C-1 | – | Intestinal metaplasia |
| 002 | 63 | F | Positive | O-1 | – | |
| 003 | 69 | M | Positive | O-3 | 49 | Intestinal metaplasia |
| 004 | 78 | M | Positive | O-2 | – | |
| 005 | 70 | F | Positive | O-3 | – | Increased vascular permeability |
| 006 | 62 | M | Positive | O-2 | 2 (primary), 14 (secondary) | Adenoma of biopsy |
| 007 | 76 | M | Positive | C-3 | – | |
| 008 | 70 | F | Positive | O-2 | – | |

GC, gastric cancer; CT83, Kita-Kyushu lung cancer antigen-1; Hp, *Helicobacter pylori*; RUT, rapid urease test

| Patient No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hp infection | + | + | + | + | + | + | + | + | + | + | + | + | + | − | + | + | + | − | + | + | + | + |
| Tumor site | | | | | | | | | | | | | | | | | | | | | | |
| Lower corpus | B | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P |
| Middle corpus | P | P | F | B | P | B | F | P | B | B | P | P | B | P | P | P | F | F | P | P | B | B |

Supplementary Figure S1　*CT83* expression at tumour and non-tumour sites of each patient with gastric cancer (GC)

Each gastric specimen carrying a tumour was sampled as follows: one tumour site and two non-tumour sites (randomly and distant from the tumour). Patients with GC were selected using a study that sampled non-tumour sites from both the lower and middle corpus. *CT83* expression was evaluated in both the tumour and non-tumour sites of the specimen. Open or closed squares indicate *CT83*'s non-expression or expression, respectively. The adjacent sampled gland sites underwent hematoxylin and eosin staining and were distinguished as the pyloric gland (P), fundic gland (F) or their combination (borderline; B). When both ends were all P or F glands, the sampled site was considered P or F. When one end was a combination of P and F glands, the sampled site was considered B. If one end was P and the other was F, the sampled site was considered B. Hp: Helicobacter pylori; +: Hp infection positive; −: Hp infection negative.