Methylation statuses of NCOR2, PARK2, and ZSCAN12 signify densities of tumor-infiltrating lymphocytes in gastric carcinoma

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Supplementary Table 1. Supplementary Table. Summary of Spearman's rho and P-value in correlation tests between quintile subsets of *NCOR2*, *PARK2*, and *ZSCAN12* methylation and CD3 TIL density or CD8 TIL density at the tumor center or invasive front

		Quintile subsets		
		NCOR2 methylation	PARK2 methylation	ZSCAN12 methylation
Tumor center	CD3 TIL density	0.340 3.52E-14	0.268, 3.39E-09	0.277 1.04E-09
	CD8 TIL density	0.332 1.72E-13	0.293 1.09E-10	0.274 1.77E-09
Invasive front	CD3 TIL density	0.227 1.07E-06	0.159 6.92E-04	0.226 1.16E-06
	CD8 TIL density	0.250 5.27E-08	0.150 1.25E-03	0.279 1.10E-09

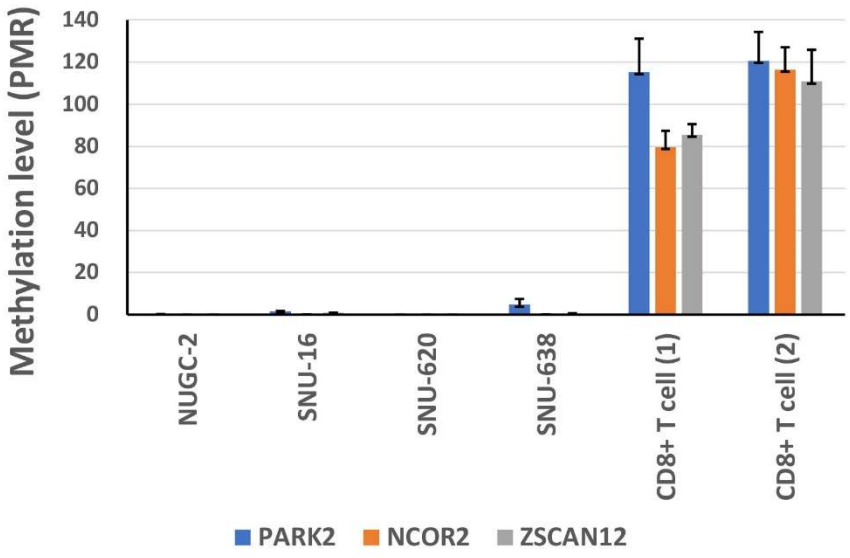
Supplementary Table 2. Demographic and clinicopathologic features of the gastric cancer patients.

Characteristic		No. of patients (n=471)
Age, year	Median (range)	61 (23–86)
Sex	Male	317 (67.3%)
	Female	154 (32.7%)
Subsite	Involving the cardia	133 (28.2%)
	Not involving the cardia	338 (71.8%)
Lymphatic emboli	Absent	176 (37.4%)
	Present	295 (62.6%)
Venous invasion	Absent	354 (75.2%)
	Present	117 (24.8%)
Perineural invasion	Absent	211 (44.8%)
	Present	260 (55.2%)
T category	T2a	109 (23.1%)
	T2b	177 (37.6%)
	T3	165 (35.0%)
	T4	20 (4.2%)
N category	N0	145 (30.8%)
	N1	87 (18.5%)
	N2	90 (19.1%)
	N3a	95 (20.2%)
	N3b	54 (11.5%)
M category	M0	416 (88.3%)
	M1	55 (11.7%)

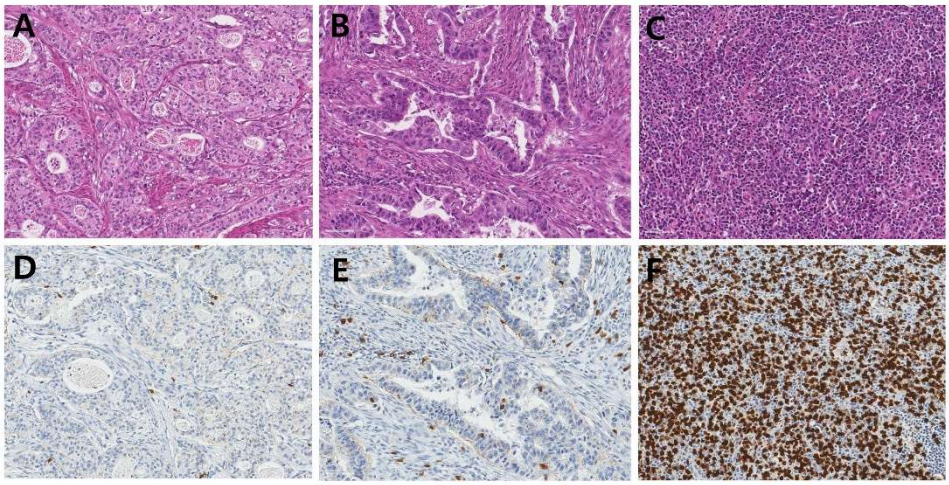
Supplementary Table 3. Oligonucleotide sequences for the three DNA methylation markers

Gene		Oligonucleotide sequences
NCOR2	forward	GATCGTTGGAGGTTCGACGTT
	reverse	AACCCACCGACGACAAATACG
	probe	6FAM-CCGCCTAACCCCACGACTAAACCGTAAA-BHQ1
PARK2	forward	GGATGGAACGGTTGCGATAGATT
	reverse	AACGAATACTATCCTAACACTAACTCAAC
	probe	6FAM-ACAACGCAAAACCGAACCCGAACGAC-BHQ1
ZSCAN12	forward	CGCGTTTCGGTTTGGGAGTA
	reverse	CTCCTCTCTATAATTACCCGACCG
	probe	6FAM-CGCCCCAACTAAACAACGCAAATTCCAACT-BHQ1

Supplementary Figure 1. MethyLight assay of three methylation markers (NCOR2, PARK2, and ZSCAN12) in gastric cancer cell lines (NUGC-2, SNU-16, SNU-620, and SNU-638) as a negative control and CD8-positive T cells (from two gastric cancer patients) as a positive control



Supplementary Figure 2. Representative photomicrographs demonstrating histologic (A, B, and C) and CD8 immunohistochemistry features (D, E, and F) of gastric cancers (GCs). A GC with methylation sum score of 0 (A & D); a GC with methylation sum score of 1 (B & E); a GC with methylation sum score of 3 (C & F)



Supplementary Figure 3. Kaplan-Meier survival analysis of overall survival (A) and recurrence-free survival (B) with respect to the combinatory statuses of microsatellite instability (MSI) and methylation sum score. Gastric cancer cases with methylation sum score of 0-2 were classified into methylation sum score (MeSc)-low, which gastric cancer cases with methylation sum score of 3 were classified into MeSc-high.