

Supplementary Table 1. Antibodies used in this study

Ab name	Cat #	Company	Source	Dilution	Note
MDGA2	ab121164	Abcam	Rabbit	1/500	WB /IHC
DMAP1	#07-2072	Millipore	Rabbit	1/500	
ATM	ab91	Abcam	Rabbit	1/200	
6X His tag	ab18184	Abcam	Mouse	1/1000	
phospho-ATM (Ser1981)	#05-740	Millipore	Mouse	1/500	
p53	sc-126	Santa Cruz	Mouse	1/300	
GAPDH	sc-25778	Santa Cruz	Rabbit	1/5000	
Cleaved Caspase-8	#9496L	Cell Signaling	Rabbit	1/500	
Cleaved Caspase-9	#9501	Cell Signaling	Rabbit	1/500	
Cleaved Caspase-7	#9491	Cell Signaling	Rabbit	1/500	
Cleaved Caspase-3	#9661	Cell Signaling	Rabbit	1/300	
Cleaved PARP	#9541	Cell Signaling	Rabbit	1/500	
p21 (F-5)	sc-6246	Santa Cruz	Mouse	1/500	
p27 Kip1	#2552	Cell Signaling	Rabbit	1/500	
Cyclin D1	sc-8396	Santa Cruz	Mouse	1/1000	
CDK4	#12790	Cell Signaling	Rabbit	1/1000	
PCNA	ab29-100	Abcam	Mouse	1/1000	
Ubiquitin	#3936	Cell Signaling	Mouse	1/1000	
E-cadherin	#3195	Cell Signaling	Rabbit	1/300	
N-cadherin	#13116	Cell Signaling	Rabbit	1/300	
Vimentin	#5741	Cell Signaling	Rabbit	1/300	
Snail	#3879	Cell Signaling	Rabbit	1/300	
Slug	#9585	Cell Signaling	Rabbit	1/300	
Anti-rabbit Ig G HRP-linked antibody	#7074s	Cell Signaling		1/3000	
Anti-mouse IgG HRP-linked antibody	#7076s	Cell Signaling		1/3000	
MDGA2	sc-163070	Santa Cruz	Goat	1/100	IF
DMAP1	ab2848	Abcam	Rabbit	1/500	
Alexa Fluor® 488 Goat Anti-Rabbit IgG (H+L) antibody	A-11008	Molecular Probes		1/500	
Alexa Fluor® 594 Donkey Anti-Goat IgG (H+L) antibody	A-11058	Molecular Probes		1/500	

WB, western blotting; IHC, immunohistochemistry; IF, immunofluorescence.

Supplementary Table 2. Distribution of patient characteristics by MDGA2 methylation status

Variable	Methylated (n=136)	%	Nonmethylated (n=82)	%	P value
Mean age, y ± SD	56.81±14.055		56.04±12.340		0.334
Gender					0.534
M	87	64.0	49	36.0	
F	49	59.8	33	40.2	
<i>H. pylori</i>					0.075
Positive	30	65.2	16	34.8	
Negative	54	54.5	45	45.5	
TNM					0.509
I	17	51.5	16	48.5	
II	20	62.5	12	37.5	
III	54	62.8	32	37.2	
IV	45	67.2	22	32.8	
Lauren					0.771
Intestinal	127	62.0	78	38.0	
Non-intestinal	9	69.2	4	30.8	
Differentiation					0.263
Low	84	58.7	59	41.3	
Moderate or High	44	67.7	21	32.3	

SD, standard deviation.

Supplementary Table 3. Targets identified by MS

No.	mass	full name	protein name	gene name
13	227646	Myosin-9	MYH9	MYH9
15	281880	Centrosome-associated protein CEP250	CP250	CEP250
	228787	Rootletin	CROCC	CROCC
16	130928	Filamin A-interacting protein 1-like	FIL1L	FILIP1L
	273781	Talin-2	TLN2	TLN2
	197997	RANBP2-like and GRIP domain-containing protein 1/2	RGPD1	RGPD1
	118407	Presequence protease, mitochondrial	PREP	PITRM1
18	273781	Talin-2	TLN2	TLN2
19	116223	CAP-Gly domain-containing linker protein 2	CLIP2	CLIP2
20	50269	Acyl-coenzyme A thioesterase 9, mitochondrial	ACOT9	ACOT9
21	36570	Zinc finger protein 691	ZN691	ZNF691
22	59773	Probable ATP-dependent RNA helicase DDX28	DDX28	DDX28
	93446	Ecotropic viral integration site 5 protein homolog	EVI5	EVI5
23	34333	Tricarboxylate transport protein, mitochondrial	TXTP	SLC25A1
24	53131	DNA methyltransferase 1-associated protein 1	DMAP1	DMAP1
26	44065	Keratin, type I cytoskeletal 19	K1C19	KRT19
27	32945	Tropomyosin beta chain	TPM2	TPM2
28	7786	Very putative protein from MEG3 locus	YYY4	MEG3
29	32856	Tropomyosin alpha-3 chain	TPM3	TPM3
	28619	Tropomyosin alpha-4 chain	TPM4	TPM4
30	43163	Serpin B7	SPB7	SERPINB7
32	34333	Tricarboxylate transport protein, mitochondrial	TXTP	SLC25A1
33	19839	Myosin regulatory light chain 12A	ML12A	MYL12A
	19824	Myosin regulatory light chain 12B	ML12B	MYL12B
34	38716	Fibronectin type 3 and ankyrin repeat domains protein 1	FANK1	FANK1
35	17090	Myosin light polypeptide 6	MYL6	MYL6
36	59097	U4/U6 small nuclear ribonucleoprotein Prp4	PRP4	PRPF4

Supplementary Table 4. Nucleotide sequences of the primers used in this study

Primer Name	Sequence (5'-3')	Size/bp	Note
MDGA2-F	TGGGCTGGATATGTTTCATGTT	248	RT-PCR
MDGA2-R	CTGATCTGTGGACGTGGATG		
DMAP1- F	AAGGACGGAGCAATGTTCTTC	133	
DMAP1-R	CATCGTGGAGATAAAGCTGGT		
Actin-F	GTCTTCCCCTCCATCGTG	113	
Actin-R	AGGGTGAGGATGCCTCTCTT		
MDGA2-BGS-F	TTATTTTGGGTTTAAGGTGGTAGTT	221	BGS
MDGA2-BGS-R	CCCTCCTTTACTCTACCTTCCTATATC		
MDGA2-MSP-mF	CGGTTTTCGGGTATTTTCGG	171	MSP
MDGA2-MSP-mR	TCGCGATTCCAACCTCACCG		
MDGA2-MSP-uF	AGTGGTTTTTGGGTATTTTGG	171	
MDGA2-MSP-uR	CATCACAATTCCAACCTCACCA		

BGS, bisulfite genomic sequencing; MSP, methylation specific PCR.