



Supplementary Figure S1. Patients with rheumatoid arthritis show similar levels of Global DNA methylation to healthy controls. Global methylation was assessed using the MethylFlash™ Global DNA Methylation (5-mC) ELISA Easy Kit. Differences between groups were analyzed using the Student's *t*-test Analysis, ****p* < 0.001

Supplementary Table S1. The allele and genotype frequency of the common polymorphisms in BER related genes in RA

Genotype or allele	RA (n = 30)		Controls (n = 30)	
	Number	Frequency	Number	Frequency
XRCC1 (rs 25478)				
C/C	8	0.37	20	0.67
C/T	17	0.46	7	0.23
T/T	5	0.17	3	0.10
C	36	0.60	47	0.78
T	24	0.40	13	0.22
hOGG1 (rs 1052133)				
C/C	20	0.67	24	0.80
C/G	6	0.20	3	0.10
G/G	4	0.13	3	0.10
C	46	0.77	51	0.85
G	14	0.23	9	0.15
UNG (rs 246079)				
A/A	3	0.10	7	0.23
A/G	19	0.63	17	0.57
G/G	8	0.27	6	0.20
A	25	0.42	31	0.52
G	35	0.58	29	0.48
UNG (rs 151095402)				
C/C	29	0.97	30	1.00
C/T	0	-	0	-
T/T	1	0.03	0	0.00
C	58	0.97	60	1.00
T/T	2	0.03	0	0.00

MBD4				
(rs 2307293)				
C/C	27	0.90	29	0.97
C/G	3	0.10	1	0.03
G/G	0	-	0	-
C	57	0.95	59	0.98
G	3	0.05	1	0.02
MUTYH				
(rs 3219472)				
C/C	22	0.73	24	0.80
C/T	6	0.20	6	0.20
T/T	2	0.07	0	0.00
C	50	0.83	54	0.90
T	10	0.17	6	0.10
MUTYH				
(rs 3219489)				
C/C	1	0.03	2	0.07
G/C	21	0.60	10	0.33
G/G	8	0.37	18	0.60
C	20	0.33	14	0.23
G	40	0.67	46	0.77
MUTYH				
(rs 3219493)				
C/C	30	1.00	28	0.93
C/G	0	-	0	-
G/G	0	0.00	2	0.07
C	60	1.00	56	0.93
G	0	0.00	4	0.07
TDG (rs 4135054)				
C/C	20	0.67	17	0.57
C/T	10	0.33	13	0.43
T/T	0	0.00	0	0.00
C	50	0.83	47	0.78
T	10	0.17	13	0.22
SMUG1				
(rs 3087404)				
C/C	10	0.33	11	0.37
C/T	17	0.57	16	0.53
T/T	3	0.10	3	0.10
C	37	0.62	38	0.63
T	23	0.38	22	0.37