

Table S1. Primer information of methylated and un-methylated NR4A1 and NR4A3 genes and rs1569686

Genes	Primers	Sequences	Tm (°C)	Product length (bp)
Methylated NR4A1	Forward	GGTTTGTTTTGATCGTTTAGTAGC	60	142
	Reverse	CACTCTCCAATTACTCCCGAA	59	
Unmethylated NR4A1	Forward	GTTTGTTTTGATTGTTTAGTAGTGG	59	143
	Reverse	CTCACTCTCCAATTACTCCCAA	61	
NR4A3 Methylated	Forward	GTTGGATTCGTCGATGAAGGCG	64	161
	Reverse	CGTCGAATCGTAACCGAAATAATAACCG	67	
NR4A3 Unmethylated	Forward	TGTTGGATTTGTTGATGAAGGTGG	62	165
	Reverse	ACCATCAAATCATAACCAAATAATAACCA	63	
Rs 1569686 Outer	Forward	GTGGTGTGAGTGACCTGGAG	63	327
	Reverse	GCAACATTATGGGCACACAG	58	
Rs1569686 Inner	Forward	CTTGGA AAAACTCGGTTTCAACT	58	217, 165
	Reverse	AAA ACTTCAGGGCATAAATCTCC	59	

Table S2. The demographic, clinical and laboratory characteristics of the study population

Hematologic factors		Hb (g/dl)		WBC count ($\times 10^3/\mu\text{L}$)	PLT count ($\times 10^3/\mu\text{L}$)
AML patients	Median	8.3		12450	46500
	minimum	4.9		113	7000
	Maximum	14.5		157200	380000
Control	Median	13.2		5650	246000
	minimum	9.8		3900	148000
	Maximum	16.5		8800	435000
FAB classification		AML-M1	AML-M2	AML-M4	AML-M5
The frequency in patients		n=23 46%	n=9 18%	n=10 20%	n=8 16%
Sex		Male		Female	
The frequency in patients		n=27 54%		n=23 46%	
The frequency in control		n=25 50%		n=25 50%	
P-value=0.84					
Median age		≥ 60		<60	
The frequency in patients		n=22 44%		n=28 56%	
The frequency in control		n=17 34%		n=33 66%	
p-value=0.67					

NR4A1 Gene

(upstream)[52050755-52051096], CPG island 87 was selected.

Bisulfite conversion **M**:

```
5' TTTTGTGGGGAAGTTCGCGT TTTGTGTATTAGTTGCGT TAGGGTTGAGGTGAGGGCGTAGGTTTTTAGGGTGTGTTTCAATT
GTTTCGTTTAGTTAGTTCGCGGTTTGGTTTGTATGATCGTTAGTAGCGGTAGTAGCGATA TTTAGGGTTTTAGGAAGGGTTGGGAAGGTG
TAAAGGCGGGTTAGGTTTCGGAGGGAGTCGGAGGGATCGGGCGCGTTGGTTTCGGGAGTAATTGGAGAGTGAGGAGATTT
TTATTCGGGGAAGTTTCGCGTTCGCGT TTTTATAGCGTTTTTTTCGGGTTTGGTTTTTCGTTGGTTATTGGATTGGGGGTT
TTTA 3'
```

Bisulfite conversion **U**:

```
5' TTTTGTGGGGAAGTTGTGTTTTGTGTATTAGTTGTGTTTAGGGTTGAGGTGAGGGTGTAGGTTTTTAGGGTGTGTTTGAATT
GTTTTGTTTAGTTTGGTTTGTGTTTGAATGTTTAGTAGTGGTAGTAGTGATA TTTAGGGTTTTAGGAAGGGTTGGGAAGGTG
AAAGGTGGGGTTAGGTTTGGAGGGAGTTGGAGGGATTGGGTGTTGGTTGGTTTGGGAGTAATTGGAGAGTGAGGAGATTTT
TATTTGGGGAAGTTTTGTGGTTGTGTTTTATAGTGTTTTTTTGGGTTTGGTTTTTTGTTGGTTATTGGATTGGGGGTTT
TTA3'
```

NR4A3 gene

(exon3) [99819867-99820227], CPG island 400 was selected.

Bisulfite conversion **M**:

```
5' TCGAATCGAGTTAAGATGGCGATTCGTTTTCGTTTTTTTCGTATTTTCGGCGGGGTTAGGGCGTTTTTTACGCGCGGGTTC
GCGTTTCGAGATTCGGTTAAAAATAGTTAGGTTTCGATATATATTTGGTTTCGGTTCGGATTTTGGCGCGGTCGCGCGTTTTTCGTTTCGT
TTTCGTTTTCGTTTCGCGCGTTTTGTTTTCGTTTCGCGCGGCGTTGAATGAGAAGGGGCGGGGGTGCATCGAGGGGAATTTATTCG
TTATTTGCGGCGCGCGTCGGCGGGCGGGTTTCGGTTAATCGTCGAATTTAGTAATATCGTTTGCGTTAATTACGCGTTTCGCGTGCG
TTAGCGTCGCGCGGT3'
```

(exon3) [99828457-99828792]

Bisulfite conversion **U**:

```
5' TTATTGTTATTTTTATATGTTGGTTTTTTTTTTGTTAGGTGGGGGTGTTATGGGATGAGGTAATTGTTTTGGTGTGTTGGTTGATT
GATTTGGTTTGTGTTGGATTTGTGATGAAGGTGGTTTTTATGGTGGTTGGTGTGTTTGTGTTTTTATTTAAGTTTTGT
TGTGTATTTTTTTGTGTTAGTTTGGTTGGTTGTTAATTTGGTTATGATTTGATGGTTGTTGTTGTGTTAGTTTGTGTTGGG
AGTTGATGTTGTTGGGTAGTTAGGTTGTGTTGAGAGTTATTTGTATGGGTTGTTGTTGGTTAAGAGG3'
```

Figure S1. The sequence and annealing sites of Methylated (M) and Unmethylated (U) primers of NR4A1 and NR4A3 genes

(The highlighted areas are the place that primers specifically bind. The red Ts are cytosines that have been converted to thymine during the bisulfite process.)

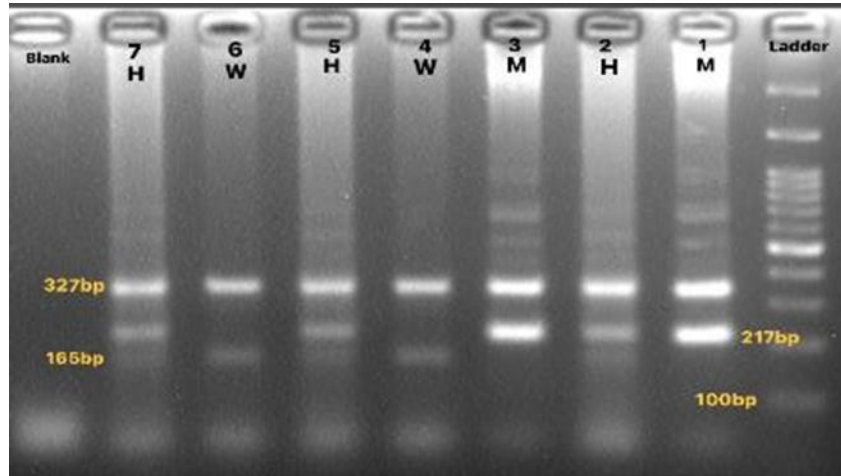


Figure S2. Gel electrophoresis of rs1569686 polymorphism of DNMT3B gene that includes negative control(blank), ladder and patient's sample. "M" is mutant homozygous; "H" is heterozygous and "W" is normal homozygous