Supplementary Information

Table S1. Methylation specific PCR primers for amplification of bisulfite converted EST cell line genomic DNA.

Gene	Sequence	Product Length
RARB Promoter	fwd: biotin-C6-5'-TTTATGCGAGTTGTTTGAGGATTGGG-3' rev: 5'-CTTACAAAAAACCTTCCGAATACGTTCC-3'	113 bp
KIT Promoter	fwd: biotin-C6-5'-AGGAGGGGTTGTTGTTCGTCG-3' rev: 5'-CGCGATAACTACGATAAAATCCG-3'	111 bp

Table S2. List of ssDNA probes used for GMR methylation profiling.

Gene	Sequence*
RARB Promoter	Meth: NH2-C6-5'-(9xT) **G**CTC**G**C**G**TTCTC**G**ACATCCCAATC uMeth: NH2-C6-5'-(9xT) AATCACTCACATTCTCAACATCCCAATCCTCAA
KIT Promoter	Meth: NH2-C6-5'-(9xT) **G**AAC**G**C**G**ACAAAACC**G**AACC-3' uMeth: NH2-C6-5'-(9xT) ACAAACACAACAAAACCAAACCCC-3'

*All probes are amino-labelled to bind to GMR sensor surfaces.

Table S3. Results of linear regression of ΔT_m versus initial methylation percentage for annealing temperatures 59 °C, 62 °C, and 64 °C.

T_a [°C]	Intercept	Slope	R^2
59	11(±4)	6(±2)	0.78
62	16.6(±0.3)	8.7(±0.4)	0.99
64	20(±1)	8(±1)	0.96

Figure S1. Regression analysis of methylation density versus ΔT_m for all three annealing temperatures. Parameters for regressions are given in Table S3.

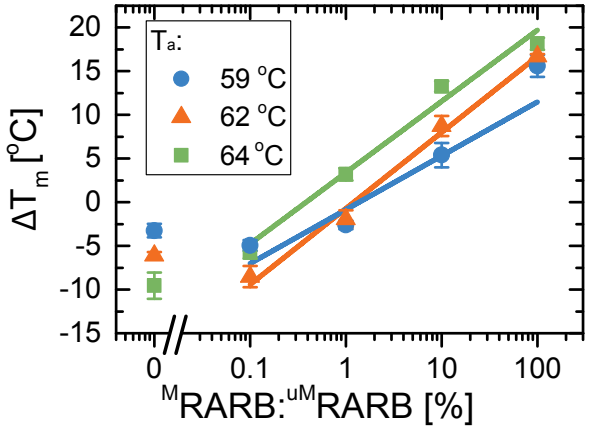

Figure S2. EvaGreen melt analysis of singleplex MSP for RARB and KIT, each with T_m = 81 ºC.