**Table 1: Functional role, coordinates, and locations of the methylated DNA markers**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Marker** | **Name** | **Function** | **DMR coordinates (GRCh37/hg19)** | **Location** |
| *AK055957* | NA | Putative promotor | chr12:133484978-133485739 | Promoter |
| *CD1D* | Cluster of differentiation 1D | MHC protein/antigen presentation | chr1:158150797-158151205 | 5' UTR |
| *CLEC11A* | C-type lectin domain containing 11A | growth factor/cell proliferation | chr19:51228217-51228732 | Gene body |
| *FER1L4* | Fer-1 like family member 4 (pseudogene) | lncRNA/gene expression regulation | chr20:34189488-34189566 | Gene body |
| *GRIN2D* | Glutamate ionotropic receptor NMDA type subunit 2D | Calcium channel receptor | chr19:48917755-48918477 | Gene body |
| *HOXA1* | Homeobox A1 | Transcriptional regulation | chr7:27136145-27136425 | Promoter |
| *LRRC4* | Leucine-rich repeat-containing protein 4 | Synaptic adhesion/cell signaling | chr7:127671993-127672310 | Promoter |
| *GH05J042948* | NA | Putative enhancer | chr5:42951691-42951760 | Enhancer |
| *NTRK3* | Neurotrophic receptor tyrosine kinase 3 | MAPK signaling | chr15:88800287-88800464 | 5' UTR |
| *PRKCB* | Protein kinase C beta type | Cell proliferation, differentiation, apoptosis | chr16:23846964-23848168 | Promoter |
| *RYR2* | Ryanodine receptor 2 | BMP pathway signaling | chr1:237205577-237205684 | Promoter |
| *SHISA9* | Shisa family member 9 | Cell signaling/PDZ domain binding | chr16:12995930-12996219 | 5' UTR |
| *ZNF781* | Zinc finger protein 781 | Transcriptional regulation | chr19:38182950-38183127 | 5' UTR |

**Table 2: Individual marker AUCs in training set**

**ROC AUC 95% CI**

*HOXA1*  0.86 0.81-0.91

*PRKCB* 0.85 0.79-0.90

*CD1D* 0.85 0.80-0.90

*FER1L4* 0.85 0.80-0.90

*GH05J042948*  0.85 0.80-0.90

*CLEC11A*  0.83 0.78-0.88

*SHISA9* 0.83 0.78-0.88

*ZNF781* 0.82 0.77-0.88

*AK055957* 0.80 0.74-0.86

*RYR2\_F*  0.79 0.73-0.84

*GRIN2D* 0.78 0.72-0.83

*NTRK3* 0.77 0.70-0.83

*LRRC4* 0.75 0.69-0.81