Table S1 Diseases and biological functions associated with DMGs of LINE-1 and Alu methylation signatures in heterogeneous ASD predicted by the Ingenuity Pathway Analysis (IPA)

|  |  |  |
| --- | --- | --- |
| Name | P-value | #Genes |
| Diseases and Disorders |
| Cancer | 5.01E-03 - 1.01E-65 | 3245 |
| Endocrine system disorders  | 2.27E-03 - 4.39E-52 | 2818 |
| Gastrointestinal disease | 3.98E-03 - 1.36E-49 | 2912 |
| Reproductive system disease | 2.27E-03 - 8.05E-33 | 2236 |
| Neurological disease | 4.95E-03 - 3.33E-26 | 2274 |
| Neurological disease category |
| Brain lesion | 3.33E-26 | 1901 |
| Familial encephalopathy | 5.01E-10 | 471 |
| Cerebral disorder | 2.24E-09 | 826 |
| Autism spectrum disorder or intellectual disability | 2.56E-06 | 253 |
| Huntington Disease | 3.06E-06 | 159 |
| Ingenuity Canonical Pathways |
| Protein Kinase A Signaling | 3.24E-05 | 92 |
| AMPK Signaling | 1.00E-03 | 57 |
| ERK5 Signaling | 1.32E-03 | 22 |
| NGF Signaling | 2.19E-03 | 31 |
| α-Adrenergic Signaling | 2.69E-03 | 28 |