Table S3 Diseases and biological functions associated with DMGs of LINE-1 and Alu methylation signatures in ASD with *CHD8* variant predicted by the Ingenuity Pathway Analysis (IPA)

|  |  |  |
| --- | --- | --- |
| Name | P-value | #Genes |
| Diseases and Disorders |
| Cancer | 2.64E-02 - 1.17E-07 | 429 |
| Immunological disease | 2.11E-02 - 2.32E-06 | 140 |
| Gastrointestinal disease | 2.47E-02 - 2.01E-05 | 390 |
| Reproductive system disease | 1.06E-02 - 2.55E-04 | 290 |
| Neurological disease | 2.58E-02 - 1.17E-04 | 302 |
| Neurological disease category |
| Brain lesion | 2.18E-04 | 253 |
| Familial encephalopathy | 2.80E-04 | 73 |
| Neonatal epilepsy | 1.31E-03 | 2 |
| Huntington Disease | 5.20E-03 | 26 |
| Movement Disorders | 8.28E-03 | 42 |
| Ingenuity Canonical Pathways |
| Pentose Phosphate Pathway (Oxidative Branch) | 2.57E-03 | 2 |
| Axonal Guidance Signaling | 3.89E-03 | 20 |
| NRF2-mediated Oxidative Stress Response | 5.37E-03 | 11 |
| α-Adrenergic Signaling | 6.46E-03 | 7 |
| CXCR4 Signaling | 8.13E-03 | 9 |