



Hereditary Cancers



| Chromosome | start (bp)  | stop (bp)   | Gene          | Band  | Syndrome   | OMIM       | Keywords   |
|------------|-------------|-------------|---------------|-------|--|------------|--|
| chr22      | 21,852,552  | 21,990,224  | BCR           | 22q11 | 22q11.2 Distal Deletion                          | 151410     | Leukaemia  |
| chr11      | 1,962,981   | 1,985,640   | H19           | 11p15 | Beckwith-Wiedemann                               | 103280     | Cancer and overgrowth                                  |
| chr11      | 2,096,925   | 2,136,469   | IGF2          | 11p15 | Beckwith-Wiedemann                               | 147470     | Cancer and overgrowth                                  |
| chr11      | 2,127,584   | 2,148,999   | INS           | 11p15 | Beckwith-Wiedemann                               | 176730, 19 | Cancer and overgrowth                                  |
| chr11      | 2,851,440   | 2,873,550   | CDKN1C        | 11p15 | Beckwith-Wiedemann                               | 607542     | Cancer and overgrowth                                  |
| chr11      | 2,867,526   | 2,913,051   | SLC22A18      | 11p15 | Beckwith-Wiedemann                               | 602631     | Cancer and overgrowth                                  |
| chr11      | 2,896,078   | 2,917,225   | PHLDA2        | 11p15 | Beckwith-Wiedemann                               | 602631     | Cancer and overgrowth                                  |
| chr3       | 140,144,730 | 140,149,880 | FOXL2         | 3q22  | Blepharophimosis                                 | 605597     | Ovary failure and cancer                               |
| chr13      | 31,787,617  | 31,871,809  | BRCA2         | 13q13 | Breast Cancer                                    | 600185     | Cancer   |
| chr10      | 88,506,376  | 88,674,925  | BMPR1A        | 10q23 | Cowden   | 601728     | Polyps and cancer                                      |
| chr16      | 88,331,460  | 88,410,566  | FANCA         | 16q24 | Fanconi Anemia                                   | 607139     | Blood, cancer  |
| chr5       | 112,071,117 | 112,209,835 | APC           | 5q22  | Gardner Syndrome                                 | 601731     | Polyps and cancer                                      |
| chr6       | 160,341,410 | 160,352,419 | IGF2R         | 6q25  | Hepatocellular Carcinoma                         | 147260     | Cancer   |
| chr17      | 7,505,822   | 7,531,642   | TP53          | 17p13 | Li-Fraumeni Type 1                               | 191170     | Cancer   |
| chr16      | 3,642,941   | 3,648,097   | DNASE1        | 16p13 | Rubinstein Taybi Syndrome                        | 125505     | Mental, physical and cancer                            |
| chr16      | 3,717,720   | 3,870,723   | CREBBP        | 16p13 | Rubinstein Taybi Syndrome                        | 600140     | Mental, physical and cancer                            |
| chr5       | 176,492,686 | 176,659,820 | NSD1          | 5q35  | Sotos Syndrome                                   | 606681     | Overgrowth, behavioural and some cancer                |
| chr8       | 116,489,900 | 116,750,429 | TRPS1         | 8q23  | Trischororhinophlangeal, Langer-Giedion Syndrome | 604386     | Bone abnormalities, cancer and some learning disorders |
| chr3       | 10,158,319  | 10,168,746  | VHL           | 3p25  | Von Hippel Lindau                                | 608537     | Cyst and tumour formation, cancer                      |
| chrX       | 123,307,875 | 123,334,696 | SH2D1A        | Xq25  | X-linked Lymphoproliferative Syndrome Type 1     | 300490     | Immune disorder and cancer                             |
| chrX       | 122,821,729 | 122,875,503 | BIRC4(XIAP)   | Xq25  | X-linked Lymphoproliferative Syndrome Type 2     | 300079     | Immune disorder and cancer                             |
| chr19      | 62,384,680  | 62,432,350  | ZNF264        | 19q13 | Zinc Finger Protein-264                          | 604668     | Zinc finger protein - imprinting                       |
| chr11      | 1,975,651   | 1,980,951   | H19_ICRegion  | 11p15 |  |            | Imprinting centre                                      |
| chr18      | 42,798,570  | 42,820,446  | TCEB3C        | 18q21 |  | 609522     | Transcription factor - imprinting                      |
| chr20      | 56,676,787  | 56,680,787  | GNAS_ICRegion | 20q13 |  | 603666     | Broad spectrum physical and mental and cancer          |
| chr20      | 56,859,056  | 56,861,251  | GNAS_ICRegion | 20q13 |  | 139320     | Broad spectrum physical and mental and cancer          |
| chr20      | 56,896,896  | 56,899,356  | GNAS_ICRegion | 20q13 |  | 139320     | Broad spectrum physical and mental and cancer          |
| chr18      | 73,090,996  | 73,111,084  | GALR1         | 18q23 |  | 600377     | Behavioural disorders, cancer, Alzheimers link         |
| chr14      | 100,352,214 | 100,407,118 | MEG3          | 14q32 |  | 605636     | Linked to cancer                                       |
| chr19      | 61,967,731  | 62,053,886  | ZIM2          | 19q13 |  | 601483     | Cancer   |
| chr19      | 62,005,614  | 62,053,875  | PEG3          | 19q13 |  | 601483     | Cancer   |
| chr19      | 62,040,958  | 62,043,979  | PEG3_ICRegion | 19q13 |  | 601483     | Cancer   |
| chr1       | 2,149,994   | 2,231,416   | SKI           | 1p36  |  | 164780     | Cancer   |
| chr1       | 3,548,988   | 3,649,715   | TP73          | 1p36  |  | 601990     | Cancer   |
| chr20      | 35,573,020  | 35,595,505  | NNAT          | 20q11 |  | 603106     | Cancer   |
| chr20      | 41,566,487  | 41,613,948  | L3MBTL        | 20q13 |  | 608802     | Involved in cancers                                    |
| chr7       | 130,058,017 | 130,079,399 | KLF14         | 7q32  |  | 609393     | Can cause Basal cell carcinoma                         |

**Important:** The testing and interpretation of Sengenics Sdn Bhd DNA analyses are based on the current understanding of the molecular genetics and basis for these conditions. DNA-based testing is highly accurate but due to the specific base pair locations selected for probes, a negative result for any of the syndromes tested cannot eliminate the possibility that the individual carries a mutation at base pair locations not covered by the test. By submitting DNA samples and orders to Sengenics Sdn Bhd the client has agreed to use the DNA-test results and interpretations at its own responsibility and to indemnify, hold harmless and defend Sengenics Sdn Bhd from any claims which may arise due to any non-detection of syndromes.