

# PANEL HEREDITARY RENALCANCER DG-4.2.0 (12 GENES)

| Gene | Twist X2 covered 10x | Twist X2 covered 20x | srWGS covered 10x | srWGS covered 15x | srWGS covered 20x | Associated Phenotype description and OMIM disease ID                                                                                                       |
|------|----------------------|----------------------|-------------------|-------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BAP1 | 100%                 | 100%                 | 100%              | 100%              | 99%               | Kury-Isidor syndrome, 619762;Tumor predisposition syndrome 1, 614327;{Uveal melanoma, susceptibility to, 2}, 606661                                        |
| FH   | 100%                 | 100%                 | 100%              | 100%              | 99.3%             | Leiomyomatosis and renal cell cancer, 150800;Fumarase deficiency, 606812                                                                                   |
| FLCN | 100%                 | 100%                 | 100%              | 99.9%             | 98.9%             | Birt-Hogg-Dube syndrome, 135150;Colorectal cancer, somatic, 114500;Pneumothorax, primary spontaneous, 173600;Renal carcinoma, chromophobe, somatic, 144700 |

|        |       |       |      |       |       |                                                                                                                                                                                                                                                                    |
|--------|-------|-------|------|-------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MET    | 100%  | 100%  | 100% | 99.9% | 99.5% | Renal cell carcinoma, papillary, 1, familial and somatic, 605074;?Arthrogryposis , distal, type 11, 620019;Hepatocellular carcinoma, childhood type, somatic, 114550;{Osteofibrous dysplasia, susceptibility to}, 607278;?Deafness, autosomal recessive 97, 616705 |
| PRDM10 | 100%  | 100%  | 100% | 100%  | 99.2% | ?Birt-Hogg-Dube syndrome 2, 620459                                                                                                                                                                                                                                 |
| PTEN   | 94.5% | 94.5% | 100% | 99.9% | 99.2% | {Glioma susceptibility 2}, 613028;{Meningioma}, 607174;Cowden syndrome 1, 158350;Lhermitte-Duclos disease, 158350;Prostate cancer, somatic, 176807;Macrocephaly/ autism syndrome, 605309                                                                           |

|        |      |       |      |       |       |                                                                                                                                                                                                                     |
|--------|------|-------|------|-------|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SDHA   | 100% | 100%  | 100% | 99.8% | 99%   | Cardiomyopathy, dilated, 1GG, 613642;Mitochondrial complex II deficiency, nuclear type 1, 252011;Neurodegeneration with ataxia and late-onset optic atrophy, 619259;Pheochromocytoma/paranglioma syndrome 5, 614165 |
| SDHAF2 | 100% | 99.2% | 100% | 100%  | 99.5% | Pheochromocytoma/paranglioma syndrome 2, 601650                                                                                                                                                                     |
| SDHB   | 100% | 100%  | 100% | 99.8% | 98.9% | Pheochromocytoma/paranglioma syndrome 4, 115310;Mitochondrial complex II deficiency, nuclear type 4, 619224;Gastrointestinal stromal tumor, 606764;Paranglioma and gastric stromal sarcoma, 606864                  |
| SDHC   | 100% | 100%  | 100% | 100%  | 99.2% | Pheochromocytoma/paranglioma syndrome 3, 605373;Paranglioma and gastric stromal sarcoma, 606864;Gastrointestinal stromal tumor, 606764                                                                              |

|      |       |       |      |       |       |                                                                                                                                                                             |
|------|-------|-------|------|-------|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SDHD | 78.9% | 78.9% | 100% | 99.9% | 98.1% | Pheochromocytoma/paraganglioma syndrome 1, 168000;Paraganglioma and gastric stromal sarcoma, 606864;Mitochondrial complex II deficiency, nuclear type 3, 619167             |
| VHL  | 88%   | 87.7% | 100% | 99.9% | 98.3% | Hemangioblastoma, cerebellar, somatic;Erythrocytosis, familial, 2, 263400;von Hippel-Lindau syndrome, 193300;Renal cell carcinoma, somatic, 144700;Pheochromocytoma, 171300 |

Gene symbols used follow HGCN guidelines: Gray KA, Yates B, Seal RL, Wright MW, Bruford EA. Nucleic Acids Res. 2015 Jan 43(Database issue):D1079-85.

TWIST X2 covered 10x describes the percentage of a gene's coding sequence that is covered at least 10x when analyzed by WES using TWIST X2 chemistry mapped against GRCh38.

TWIST X2 covered 20x describes the percentage of a gene's coding sequence that is covered at least 20x when analyzed by WES using TWIST X2 chemistry mapped against GRCh38.

srWGS covered 10x describes the percentage of a gene's coding sequence that is covered at least 10x when analyzed by WGS mapped against GRCh38.

srWGS covered 15x describes the percentage of a gene's coding sequence that is covered at least 15x when analyzed by WGS mapped against GRCh38.

srWGS covered 20x describes the percentage of a gene's coding sequence that is covered at least 20x when analyzed by WGS mapped against GRCh38.

non-protein coding genes are covered, but as coverage statistics are based on protein coding regions, statistics could not be generated.

OMIM release used for OMIM disease identifiers and descriptions : November 25th, 2024.

This list is accurate for panel version DG 4.2.0

Ad 1. Blank field signifies a gene without a current OMIM association Ad 2. OMIM phenotype descriptions between {} signify risk factors