**Information on the primers included into the target NGS panel for the *PIK3CA* gene sequencing**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Direct primer** | **Reverse primer** | **Chromosome** | **Start** | **End** | ***PIK3CA* codons or gene** |
| AGAATGTTTACTACCAAATGGAATGA | AAATAGTTCATGCTTTATGGTTATTAATGTAG | 3 | 178916679 | 178916763 | 32–39 |
| AGATGAATCTTCTTACATTTTCGTA | GGGTTGAAAAAGCCGAAG | 3 | 178916802 | 178916904 | 73–90 |
| ACAAGACGACTTTGTGACCT | CTCGATTGAGGATCTTTTCTTC | 3 | 178916869 | 178916959 | 93–118 |
| AAGTAATTGAACCAGTAGGCAAC | TTGCATTTTAGAATAGGATATTGTATCATAC | 3 | 178916912 | 178916996 | 93–118 |
| ATGCTGTGTATGTAATAGAATGTTATATTC | ATCAAATTCACACACTGGCATG | 3 | 178917428 | 178917512 | 118–121 |
| GTGCACTCAGAATAAAAATTCTTTGTG | GCATCAGCATTTGACTTTACCTT | 3 | 178921513 | 178921597 | 342–351 |
| CTTATGTGACAATGTGAACACTCAA | ATAACCTTTGGAAATATAAATCTATATACTTCCT | 3 | 178922329 | 178922413 | 376–381 |
| TGAAATGTGTTTTATAATTTAGACTAGTGA | AGTTTATATTTCCCCATGCCAA | 3 | 178927922 | 178928007 | 420 |
| AATGGCTTTGAATCTTTGGCCA | ATTTGATCCAGTAACACCAATAGGG | 3 | 178928042 | 178928117 | 449–464 |
| GTACCTCATGGATTAGAAGATTTGCTG | TTTATGACAATAAAAACCTTACTTTATTTGGA | 3 | 178928064 | 178928148 | 449–464 |
| CTCAAAGCAATTTCTACACGAGA | TAGCACTTACCTGTGACTCC | 3 | 178936049 | 178936132 | 539–551 |
| TGTTTATTTTGTTTCTCCCACACA | TTCCATTTAACAGACAGAAGCAATT | 3 | 178936959 | 178937043 | 558–566 |
| TGGAAAAGCTCATTAACTTAACTGA | AAACACAAACTAGAGTCACACAC | 3 | 178938884 | 178938968 | 713–728 |
| CAGCATGCCAATCTCTTCATAAAT | ATGCAATGTCATCAAAAGATTGTAGTT | 3 | 178951922 | 178952006 | 1002–1010 |
| GCAAGAGGCTTTGGAGTATTTC | GGAAGATCCAATCCATTTTTG | 3 | 178952041 | 178952123 | 1041–1049 |
| GGAGGAAGTAGCGTGGCCG | TGGCGAGGGTCTGACGGGTA | 14 | 105246515 | 105246609 | *AKT1* |
| GGTTCCATCTACCTTTCCCC | GCGTCAAAGCCAGGGTG | 16 | 68772172 | 68772252 | *CDH1* |
| AATGTGAAAATTCCAGTGGCCA | GGGGCTTACGTCTAAGATTTCTTT | 17 | 37880189 | 37880272 | *ERBB2* |
| CCCATACCCTCTCAGCGTAC | CCAGAAGGCGGGAGACATAT | 17 | 37880947 | 37881030 | *ERBB2* |
| CAGCATGAAGTGCAAGAACG | GGCTAGTGGGCGCATGTA | 6 | 152419891 | 152419976 | *ESR1* |
| TTGGCTTTGGTGAGATCCATT | TCTCAAAGATTCCAGAAGTCAGGA | 20 | 57484365 | 57484447 | *GNAS* |
| TTTACTCAAAGAGGATGTCAAGTGGC | CTGCAGAGTGGGCGGCT | 7 | 128587321 | 128587375 | *IRF5* |
| TTTGTCCCGTCAAAGCCC | CCAATGCTGACACGAAGGAT | 19 | 10600410 | 10600492 | *KEAP1* |
| AATGGCCAAAGCACTGATGG | TGGGGCATAGTTAAAACCTGT | 2 | 198266805 | 198266889 | *SF3B1* |

NGS, next generation sequencing; PCR, polymerase chain reaction

The primer sequences are shown in the direction 5’→3’. The columns “Start” and “End” indicate the coordinates of a PCR product on the chromosome 3 of the reference human genome hg19