|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   | **p53-mutant** | **MSI** | **POLE-mutant** | **NSMP** | **Total** |  | **p53-mutant** | **MSI** | **POLE-mutant** | **NSMP** | **Total** |
|   | **n=74**  | **n=219**  | **n=49** | **n=492**  | **n=834**  |  | **n=74**  | **n=219**  | **n=49** | **n=492**  | **n=834**  |
| ***PTEN*¹ (%)** | 15 (20) | 105 (48) | 34 (69) | 195 (40) | 349 (43) | ***KRAS*¹ (%)** | 7 (9) | 43 (20) | 3 (6) | 86 (17) | 139 (17) |
| p.R130G | 5 | 24 | 3 | 75 | 107/790 | p.G12D | 2 | 14 | 1 | 28 | 45/795 |
| p.R130fs\*4 | 6 | 18 | 19 | 45 | 88/801 | p.G12V | 3 | 10 | 1 | 23 | 37/795 |
| p.R233\* | 3 | 14 | 0 | 22 | 39/799 | p.G13D | 1 | 13 | 1 | 12 | 27/801 |
| p.L318fs\*2 | 2 | 11 | 0 | 17 | 30/796 | p.G12A | 0 | 4 | 0 | 10 | 14/795 |
| p.R130\* | 2 | 7 | 0 | 11 | 20/790 | p.G12C | 1 | 1 | 0 | 8 | 10/795 |
| p.T321fs\*3 | 0 | 10 | 0 | 7 | 17/786 | p.G12S | 0 | 0 | 0 | 3 | 3/795 |
| p.N323fs\*2 | 0 | 10 | 0 | 7 | 17/791 | p.G13S | 0 | 0 | 0 | 2 | 2/775 |
| p.K267fs\*9 | 0 | 13 | 0 | 1 | 14/827 | p.Q61H(G) | 0 | 1 | 0 | 1 | 2/791 |
| p.R173C | 0 | 1 | 8 | 5 | 14/805 | p.G13C | 0 | 0 | 0 | 1 | 1/775 |
| p.E7\* | 0 | 0 | 8 | 2 | 10/802 | p.G13R | 1 | 0 | 0 | 0 | 1/775 |
| p.R130P | 0 | 2 | 0 | 8 | 10/800 | p.Q61L | 0 | 0 | 0 | 0 | 1/784 |
| p.K267fs\*31 | 0 | 5 | 0 | 4 | 9/798 | ***FGFR2*¹ (%)** | 2 (3) | 19 (9) | 0 (0) | 59 (12) | 80 (10) |
| p.R130L | 0 | 2 | 0 | 6 | 8/800 | p.S252W | 1 | 12 | 0 | 34 | 47/798 |
| p.R173H | 0 | 2 | 3 | 3 | 8/801 | p.N549K | 1 | 1 | 0 | 15 | 17/795 |
| p.K6fs\*4 | 0 | 1 | 1 | 2 | 4/801 | p.K659E | 0 | 2 | 0 | 7 | 9/803 |
| p.Q214\* | 0 | 1 | 0 | 3 | 4/798 | p.C382R | 0 | 4 | 0 | 2 | 6/805 |
| p.R234W | 0 | 2 | 0 | 2 | 4/787 | p.Y375C | 0 | 2 | 0 | 1 | 3/806 |
| p.248fs\*5 | 0 | 2 | 0 | 2 | 4/801 | ***POLE* (%)** | 0 (0) | 0 (0) | 49 (100) | 0 (0) | 49 (6) |
| p.R355\* | 0 | 1 | 0 | 3 | 4/803 | p.P286R | 0 | 0 | 32 | 0 | 32/834 |
| p.V290fs\*1 | 0 | 3 | 0 | 0 | 3/800 | p.V411L | 0 | 0 | 14 | 0 | 14/834 |
| p.T321fs\*23 | 0 | 1 | 0 | 1 | 2/797 | p.S297F | 0 | 0 | 3 | 0 | 3/834 |
| p.N323fs\*21 | 0 | 1 | 0 | 1 | 2/826 | ***FBXW7*¹ (%)** | 8 (11) | 13 (6) | 1 (2) | 18 (4) | 40 (5) |
| ***PIK3CA*¹ (%)**  | 17 (23) | 69 (32) | 24 (49) | 151 (31) | 261 (32) | p.R465H | 2 | 6 | 0 | 9 | 17/825 |
| p.R88Q | 6 | 24 | 13 | 30 | 73/789 | p.R505C | 4 | 3 | 0 | 5 | 12/799 |
| p.H1047R | 4 | 13 | 0 | 34 | 51/800 | p.R479Q | 2 | 3 | 1 | 1 | 7/803 |
| p.E545K | 3 | 5 | 0 | 27 | 35/800 | p.R465C | 1 | 1 | 0 | 3 | 5/813 |
| p.E542K | 0 | 5 | 2 | 15 | 22/809 | p.R479L | 0 | 1 | 0 | 0 | 1/803 |
| p.M1043I | 0 | 1 | 5 | 11 | 17/794 | ***PPP2R1A*¹ (%)** | 12 (16) | 6 (3) | 1 (2) | 20 (4) | 39 (5) |
| p.Y1021C | 1 | 4 | 4 | 4 | 13/825 | p.R183W | 1 | 1 | 0 | 14 | 16/783 |
| p.H1047Y | 1 | 9 | 0 | 2 | 12/807 | p.S256F | 3 | 0 | 0 | 3 | 6/778 |
| p.Q546K | 1 | 5 | 0 | 5 | 11/804 | p.P179L | 4 | 0 | 0 | 1 | 5/807 |
| p.Q546R | 0 | 2 | 0 | 9 | 11/782 | p.R183Q | 0 | 2 | 1 | 2 | 5/779 |
| p.E545A | 1 | 2 | 1 | 6 | 10/791 | p.R258H | 0 | 3 | 0 | 1 | 4/784 |
| p.T1025A | 0 | 2 | 4 | 3 | 9/785 | p.S256Y | 3 | 0 | 0 | 0 | 3/778 |
| p.H1047L | 0 | 1 | 0 | 7 | 8/800 | p.P179R | 1 | 0 | 0 | 0 | 1/807 |
| p.M1043V | 0 | 1 | 0 | 4 | 5/805 | ***NRAS* (%)** | 1 (1) | 8 (4) | 0 (0) | 16 (3) | 25 (3) |
| p.E545G | 0 | 1 | 0 | 3 | 4/791 | p.Q61L | 1 | 3 | 0 | 2 | 6/800 |
| p.Q546L | 0 | 0 | 0 | 2 | 2/782 | p.Q61R | 0 | 0 | 0 | 5 | 5/800 |
| p.Q546P | 0 | 0 | 0 | 2 | 2/782 | p.G12D | 0 | 2 | 0 | 2 | 4/828 |
| p.E545D | 0 | 0 | 0 | 1 | 1/793 | p.G12S | 0 | 1 | 0 | 3 | 4/806 |
| p.Q546E | 0 | 1 | 0 | 0 | 1/804 | p.Q61K | 0 | 0 | 0 | 2 | 2/811 |
| ***CTNNB1*¹(%)** | 5 (7) | 18 (8) | 8 (16) | 126 (26) | 157 (20) | p.G12A | 0 | 0 | 0 | 1 | 1/828 |
| p.S37T | 2 | 1 | 1 | 34 | 38/804 | p.G12C | 0 | 1 | 0 | 0 | 1/806 |
| p.S45F | 0 | 0 | 1 | 11 | 12/801 | p.G12V | 0 | 1 | 0 | 0 | 1/828 |
| p.S33F | 0 | 1 | 0 | 10 | 11/796 | p.G13R | 0 | 0 | 0 | 1 | 1/788 |
| p.T41I | 0 | 2 | 1 | 8 | 11/796 | ***CDKN2A* (%)** | 0 (0) | 0 (0) | 0 (0) | 2 (<1) | 2 (<1) |
| p.D32N | 0 | 2 | 1 | 6 | 9/801 | p.R80\* | 0 | 0 | 0 | 1 | 1/805 |
| p.S33Y | 0 | 1 | 1 | 7 | 9/796 | p.D108A | 0 | 0 | 0 | 1 | 1/799 |
| p.G34R | 1 | 4 | 0 | 4 | 9/828 | ***BRAF* (%)** | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 0 (0) |
| p.T41A | 1 | 1 | 0 | 7 | 9/814 | ***FGFR3* (%)** | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 0 (0) |
| p.D32Y | 0 | 0 | 0 | 8 | 8/801 | ***FOXL2* (%)** | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 0 (0) |
| p.G34E | 0 | 3 | 2 | 3 | 8/793 | ***HRAS* (%)** | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 0 (0) |
| p.S45P | 0 | 1 | 0 | 6 | 7/805 | ¹ Some tumours had multiple mutations in one gene. Frequencies presented as n (%), where n represents the number of samples showing the mutation. Analysed hot spot mutations which were not detected are not shown.  |
| p.S37C | 1 | 0 | 0 | 5 | 6/804 |
| p.S33C | 0 | 0 | 0 | 5 | 5/796 |
| p.D32G | 0 | 0 | 0 | 4 | 4/826 |
| p.S33P | 0 | 1 | 0 | 3 | 4/814 |
| p.G34V | 0 | 0 | 0 | 3 | 3/793 |  |  |  |  |  |  |
| p.D32H | 0 | 0 | 0 | 2 | 2/801 |   |   |   |   |   |   |
| p.D32V | 0 | 0 | 0 | 2 | 2/826 |   |   |   |   |   |   |
| p.S33A | 0 | 1 | 0 | 1 | 2/814 |   |   |   |   |   |   |
| p.S37P | 0 | 0 | 0 | 2 | 2/804 |   |   |   |   |   |   |
| p.S45Y | 1 | 0 | 1 | 0 | 2/801 |   |   |   |   |   |   |
| p.S37A | 0 | 0 | 0 | 1 | 1/804 |   |   |   |   |   |   |
| p.S37Y | 0 | 0 | 0 | 1 | 1/804 |   |   |   |   |   |   |
| p.S45C | 0 | 0 | 0 | 1 | 1/801 |   |   |   |   |   |   |