**Supplementary Table S1: Overview of sequencing methods for each cohort.**

|  |  |  |
| --- | --- | --- |
| **Method** | **N (%)** | |
| **nNGMcohort** |  | |
| *EGFR*exons 18-21 | 113 (13.2) | |
| *EGFR*exons 18, 19, 21 | 7 (0.8) | |
| Targeted NGS Panel | 734 (85.7) | |
| Commercial | 65 (7.6) | |
| Customized (LUN3,4,5\*) | 669 (78.1) | |
| Total | 854 (99.8) | |
| Missing | 2 (0.2) | |
| **Clinical FUP cohort** |  | |
| *EGFR*exons 18-21 | 50 (19.3) | |
| *EGFR*exons 18, 19, 21 | 4 (1.6) | |
| Targeted NGS Panel | 204 (78.5) | |
| Commercial | 16 (6.2) | |
| Customized (LUN3,4,5\*) | 188 (72.3) | |
| Total | 258 (99.3) | |
| Missing | 2 (0.7) | |
| **Co-mutationscohort** |  | |
| Targeted NGS Panel | 310 (99.9) | |
| Commercial | 12 (3.8) | |
| Customized (LUN3,4,5\*) | 298 (96.1) | |
| Total | 310 (99.9) | |
| Missing | 0 | |
| \*one of three NGS-Panel was used. | |