**Supplementary Table S1.** Demographic and clinicopathologic characteristics of lung adenocarcinoma samples in 4 independent cohorts.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **TCGA Cohort** | **GSE72094 Cohort** | **Broad Cohort** | **GLCI Cohort** |
| **No. of patients** | 462 | 442 | 183 | 85 |
| **Age** |  |  |  |  |
| **Mean, yrs** | 66.0  | 70.0 | 67.0 | 62.0  |
| **Range** | 33 – 88 | 38 – 89 | 36 – 87 | 31 – 79 |
| **Gender** |  |  |  |
| **Male** | 216 (46.8) | 202 (45.7) | 95 (51.9) | 63 (74.1) |
| **Female** | 246 (53.2) | 240 (54.3) | 88 (48.1) | 22 (25.9) |
| **Smoking** |  |  |  |  |
| **Never** | 63 (13.7) | 33 (7.5) | 27 (14.7) | 32 (37.6) |
| **Ever** | 385 (83.3) | 335 (75.8) | 135 (73.8) | 53 (62.4) |
| **Unknown** | 14 (3.0) | 74 (16.7) | 21 (11.5) | 0 |
| **Stage** |  |  |  |  |
| **I** | 251 (54.3) | 265 (60.0) | 90 (49.2) | 44 (51.8) |
| **II** | 110 (23.8) | 69 (15.6) | 36 (19.7) | 17 (20.0) |
| **IIIA** | 66 (14.3) | 44 (10.0) | 18 (9.8) | 17 (20.0) |
| **IIIB-IV** | 35 (7.6) | 36 (8.1) | 14 (7.6) | 7 (8.2) |
| **Unknown** | 0 | 28 (6.3) | 25 (13.7) | 0 |
| **Vital status** |  |  |  |  |
| **Living** | 307 (66.5) | 298 (67.4) | NA | 69 (81.2) |
| **Deceased** | 151 (32.7) | 122 (27.6) | NA | 16 (18.8) |
| **Unknown** | 4 (0.8) | 22 (5.0) | NA | 0 |
| **EGFR** |  |  |  |
| **Mutation** | 55 (11.9) | 47 (10.6) | 32 (17.5) | 28 (32.9) |
| **Wild type** | 407 (88.1) | 395 (89.4) | 151 (82.5) | 57 (67.1) |
| **KRAS** |  |  |  |
| **Mutation** | 110 (23.8) | 154 (34.8) | 49 (26.8) | 15 (17.6) |
| **Wild type** | 352 (77.2) | 288 (65.2) | 134 (73.2) | 70 (82.4) |
| **TP53** |  |  |  |
| **Mutation** | 244 (52.8) | 110 (24.9) | 92 (50.3) | 35 (41.2) |
| **Wild type** | 218 (47.2) | 331 (75.1) | 91 (49.7) | 50 (58.8) |
| **STK11** |  |  |  |
| **Mutation** | 72 (15.6) | 68 (14.7) | 27 (14.8) | 8 (9.4) |
| **Wild type** | 390 (84.4) | 374 (85.3) | 156 (85.2) | 77 (90.6) |

Abbreviations: TCGA, The Cancer Genome Atlas; GLCI, Guangdong Lung Cancer Institute; EGFR, epidermal growth factor receptor.