|                          | IDH-wildtype (n = 29) | IDH-mutated (n = 6) |
|--------------------------|----------------------|---------------------|
| **Gender**               |                      |                     |
| - Male                   | 22 (75.9%)           | 5 (83.3%)           |
| - Female                 | 7 (24.1%)            | 1 (16.7%)           |
| **Age at first diagnosis (years)** |                      |                     |
| - Median (range)         | 51 (20 - 75)         | 30.5 (24 - 56)      |
| **WHO Grades**           |                      |                     |
| - Grade II - III         | 5 (17.2%)            | 5 (83.3%)           |
| - Grade IV               | 24 (82.8%)           | 1 (16.7%)           |
| **MGMT promoter methylation status** |                      |                     |
| - methylated             | 4 (13.8%)            | -                   |
| - unmethylated           | 8 (27.6%)            | -                   |
| - unknown                | 17 (58.6%)           | 6 (100.0%)          |
| **Treatment**            |                      |                     |
| - bevacizumab alone      | 16 (55.2%)           | 2 (33.3%)           |
| - bevacizumab + alkylating agent | 6 (20.7%)           | 3 (50.0%)           |
| - bevacizumab + tyrosine kinase inhibitor | 7 (24.1%)           | 1 (16.7%)           |
| **Bevacizumab dosage**   |                      |                     |
| - 400 mg absolute        | 16 (55.2%)           | 6 (80.0%)           |
| - corresponding to mg bevacizumab per kg body weight; median, range | 5.1 (4 - 8.2)       | 5.6 (4 - 6.7)       |
| - 10 mg/kg body weight   | 13 (44.8%)           | 0 (20.0%)           |
| **Documented dexamethasone use during study** |                      |                     |
| - yes                    | 15 (51.7%)           | 2 (33.3%)           |
|                          | sPD-L1                |                  |
|--------------------------|-----------------------|------------------|
| Detection rates at baseline | 18 (62.1%)           | 5 (83.3%)        |
| Median (range) of positive samples at baseline [ng/ml] | 0.2795 (0.057 – 3.383) | 0.563 (0.127 – 2.245) |
| Median number of measurements per patient | 6 (2 - 19)           | 8 (5 - 24)       |
| Median time to bevacizumab treatment in months (range) | 15.3 (5.9 – 88.6)    | 37.5 (5.8 – 76.1) |
| Median overall survival from first diagnosis (months) | 21.6 (95% CI: 18.7 – 25.1) | 53.2 (95% CI: 35.1 – n.r.) |
| Median overall survival from first bevacizumab treatment (months) | 5.4 (95% CI: 4.5 – 7.2) | 18.8 (95% CI: 6.7 – n.r.) |

Supplementary Table 1. Baseline characteristics according to IDH mutational status available in 31/40 (77.5%) patients
Supplementary Fig. 1. sPD-L1 levels at baseline in (A) glioblastoma and WHO grade II-III glioma and (B) IDH-wildtype (IDH-wt) and IDH-mutant (IDH-mt) tumors.
Supplementary Fig. 2. Overall survival according to sPD-L1 detectability at baseline in (A) glioblastoma, (B) WHO grade II-III glioma, (C) IDH-wildtype glioma; Overall survival according to sPD-L1 change in (D) glioblastoma, (E) WHO grade II-III glioma, (F) IDH-wildtype glioma.