

Supplementary Table 4. BRISQ reporting guidelines for study cohort.

I. Pre-acquisition:	
Biospecimen type:	Solid tissue, plasma
Anatomical Site:	Brain tumor tissue from disease site, Antecubital arm for peripheral blood
Disease status:	Specimens were obtained from adults with known or suspected gliomas who had no prior history of other primary tumors or active infections. Samples were also obtained from adult healthy controls with no prior history of cancer, neurological disorders, or active infections.
Clinical characteristics of patients:	Pertinent clinical data obtained were age, sex, tumor location, tumor volume, tumor pathology (histological and molecular features), time since onset of symptoms, and prior oncology treatment, if applicable. Clinical data for healthy controls included age, sex, and current medications.
Vital State:	All samples were collected from live patients.
Diagnosis:	For glioma patients, all diagnoses were based on tumor tissue pathological distinctions defined by a neuropathologist. Healthy controls were determined by a self-reported medical evaluation and basic chemistry blood tests. Pathology included TERT mutant glioma, TERT wildtype glioma, and healthy control.
II. Acquisition:	
Collection mechanism and parameters:	Fresh tumor tissue obtained during surgical resection was collected in sterile containers with saline and kept in the operating room until completion of the surgical procedure. Tissue specimen were flash frozen with or without RNALater immediately. Whole blood was collected via standard venipuncture or obtained from arterial lines prior to surgical tumor tissue resection. All healthy control plasma samples were collected from a standard venipuncture.
Time from biospecimen excision/acquisition to stabilization:	All biospecimen were processed within 2 hours of collection.
III. Stabilization/Preservation:	
Mechanism of stabilization:	RNALater was used to preserve tumor tissue. K2 EDTA tubes were used to collect whole blood. No stabilization reagent was used for processed plasma. All samples were processed at room temperature.
Type of long-term preservation:	All samples were stored at -80 C.
IV. Storage/Transport:	
Storage temperature:	All biospecimen were collected at room temperature and were stored at -80 C following processing.
Storage duration:	1 month to 2 years.
V. Quality Assurance Measures Relevant to the Extracted Product and Processing Prior to Analyte Extraction and Evaluation:	
Composition assessment and selection:	Tumor presence in extracted tissue was determined by a neuropathologist. Plasma samples were evaluated for hemolysis based on color and hemolysed samples were excluded from this study.