UNIVERSITÄTS
KLINIKUM
HEIDELBERG

Heidelberg University Hospital | Im Neuenheimer Feld 400 | 69120 Heidelberg

Liquid Biopsy Diagnostics from CSF – SOP for sample collection and shipping

External Referrers (International)

Indication for CSF-based Liquid Biopsy Using NGS Panel-Sequencing

- Patients with **(suspected) primary or secondary brain tumors**:
  a) for initial diagnosis
  b) for monitoring disease course
  c) for identification of molecular markers
- Patients with **(suspected) leptomeningeal diseases (meningeosis)**

Patient Consent (for the referring physician)

1. Obtain **informed consent** from the patient in accordance with local standards, including consent for sample transfer ant he performance of genetic testing.

Sample Collection (for the referring physician)

2. Collection of CSF and blood samples and appropriate labeling of tubes:
   a. 6-8 mL **CSF** in a **cell-free DNA tube** (e.g., Streck Cell-Free DNA BCT® CE)
   b. **Whole blood** in in a **9 mL-EDTA Monovette** (e.g., Sarstedt)
   c. CSF / serum for local cytology and routine baseline analyses

Cost Coverage for Submission from EU / Non-EU Countries

3. **Submission from EU countries**:
   Issuance of S2 form with signature and office stamp.

4. **Submission from non-EU countries**:
   Please contact the International Office of Heidelberg University Hospital to clarify cost coverage. Once cost coverage has been confirmed, the sample may be submitted.
   (Email: international.office@med.uni-heidelberg.de)

   Note: In the absence of a valid S2 form or written confirmation of cost coverage from the International Office, samples will **NOT be processed**!

Department of Neurology
Prof. Dr. Wolfgang Wick
Medical Director
Im Neuenheimer Feld 400
69120 Heidelberg

Institute of Pathology
Division of Neuropathology
Prof. Dr. A. von Deimling
Medical Director
Im Neuenheimer Feld 224
69120 Heidelberg

Liquid Biopsy Brain Tumors

PD Dr. Tobias Kessler
Prof. Dr. Dr. Felix Sahm

liquidbiopsy.NEU@med.uni-heidelberg.de

Im Neuenheimer Feld 400
69120 Heidelberg
Germany
Tel. +49 6221 56-311455
Fax +49 6221 56-5297
www.klinikum.uni-heidelberg.de

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Sample Processing (for in-house CSF laboratory)

5. Separation of CSF cells and supernatant by centrifugation (document on website: *"SOP for initial sample processing"*) as well as cytology and routine CSF parameters according to local standards.

Documentation

6. Completion of the Liquid Biopsy submission form (document on website: *"Submission form"*).

Sample Shipment

7. Shipment of the CSF supernatant and EDTA whole blood labeled with patient name and date of birth together with the completed submission form and the S2 form / confirmation of cost coverage to the Liquid Biopsy Lab Hirntumore at Heidelberg University Hospital.

   Shipping Address:

   Universitätsklinikum Heidelberg, Kopfklinik
   Liquid Biopsy Lab Hirntumore
   Attn. Andrea Dormann und Sandy Walter
   Im Neuenheimer Feld 400
   69120 Heidelberg
   Germany

   Phone: +49 6221 56-38265 (Andrea Dormann)
   or +49 6221 56-35603 (Sandy Walter)

Sample Registration

8. **ALWAYS required:** Please register sample shipment including contact details by email to: liquidbiopsy.NEU@med.uni-heidelberg.de

Liquid Biopsy Board – Reporting of Results

9. Liquid Biopsy reports are generally transmitted by fax or postal mail.
   Please indicate in the corresponding fields of the submission form:
   - preferred method of report delivery including postal address or fax number
   - if participation in the Liquid Biopsy Board is desired: contact details of the participating person(s)

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Neurologische Klinik
Prof. Dr. Wolfgang Wick
Ärztlicher Direktor
Im Neuenheimer Feld 400
69120 Heidelberg

Pathologisches Institut
Abteilung Neuropathologie
Prof. Dr. A. von Deimling
Ärztlicher Direktor
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Liquid Biopsy Diagnostics from CSF – Assay Description

Next-generation sequencing (NGS) is performed on cell-free DNA. The current panel comprises approximately 200 genes relevant to brain tumors (complete gene list available on the website; document: “List of genes analyzed in panel sequencing”).

Through the identification of characteristic molecular alterations (e.g., IDH, H3, EGFR, TERT, etc.), the assay may provide information on tumor type and activity.

Following discussion in the Neuro Liquid Biopsy Board, a written report including interpretation is issued.

This investigation remains experimental. The use of results for therapeutic decision-making lies solely within the responsibility of the treating physician.

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69120 Heidelberg
Germany
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Fax +49 6221 56-7554
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