

# INFORM – Drug Sensitivity Profiling

We are offering optional **Drug Sensitivity Profiling** in our INFORM platform (INFORM amendment 5) on short term cultures from **viable tumor tissue**.

For patients with solid tumors and brain tumors and if sufficient tissue for the molecular target identification is assured, **additionally vital tumor tissue of the same surgery/localization may be sent** for Drug Sensitivity Profiling to Heidelberg (not mandatory).

We will test a library of approved chemo- and targeted drugs ex vivo using an advanced drug sensitivity scoring algorithm (either full screen >75 drugs or partial screen if the material is limited).

You will receive a **Drug Report in Marvin** with a list of up to 10 drugs (and if possible also drug combinations), which ranked top in our screen.

**First priority** is the submission of sufficient **Fresh Frozen** tumor tissue **for sequencing**:

Minimal material requirements for DNA- and RNA-sequencing and methylation analyses:

- 1 pea-sized snap frozen piece of tumor tissue (approx. 10x10x10mm) or
- 1 large core biopsy or 5 stereotactic biopsies or

For international patients:

- thereof extracted nucleic acids (tumor cell content >40%):  
**T-DNA and T-RNA >1500ng each**

→ If there is only limited tumor tissue snap freeze in liquid nitrogen asap and send only Fresh Frozen tissue / T-DNA & RNA for sequencing (mandatory)

→ If there is sufficient tissue, additionally **send viable tissue in serum free media (preferred!) or 0.9% NaCl within 24h after surgery** for Drug Sensitivity Profiling (optional) as described on the next slide

# INFORM - Shipment of fresh VITAL tumor tissue for Drug Sensitivity Profiling

1. Register patient in MARVIN and INFORM beforehand and fill in registration form completely (register patient again if already previously analyzed).
2. Generate the [newly programmed shipment form for viable tissue](#) in Marvin by choosing “*Fresh VITAL tumor tissue (viable, non-frozen, in serum free media or 0.9% NaCl)*” at item “*Which sample will be shipped*”.
3. At the following new item confirm that sufficient Fresh frozen tumor tissue (or thereof extracted nucleic acids) for the molecular sequencing analyses is assured (required for INFORM inclusion). Fill in all other required information in the shipment form before viable sample shipment.
4. By filling in the item: “*Sample will be/was sent to Heidelberg on*” [an automated email alert will be triggered](#) and INFORM incoming lab as well as the Translational Drug Screening Unit (TDSU) will be expecting the viable tissue on the next day (so please inform us if there are any changes of plans).
  5. **Asap after collection put fresh VITAL tumor tissue (viable, non-frozen) in sterile falcon completely filled with serum free medium (preferred!) or 0.9% NaCl and do NOT freeze.**
  6. **Within 24h after surgery send cooled (not frozen) or at room temperature via overnight express to INFORM incoming lab in Heidelberg.**
7. **Size matters!** If possible, provide [at least one pea-sized piece \(approx. 10x10x10mm\)](#) of viable tumor tissue (ideally much more)! The likelihood of drug screening [success directly correlates with sample size](#).
8. [Please send an email to inform\\_samples@dkfz.de](mailto:inform_samples@dkfz.de) every time viable tissue is on its way and tell us the tracking number and shipment company. If there was not enough material to send viable tissue as planned please inform us as well.
9. The incoming lab is closed on weekends, German public holidays and holidays in Baden-Württemberg. Viable tissue receipt might still be possible as an exception, please clarify beforehand each time if and how via [INFORM\\_TDSU@kitz-heidelberg.de](mailto:INFORM_TDSU@kitz-heidelberg.de)
10. Do not forget to send Fresh frozen tumor material from same surgery/localization as well as Non-malignant material (or, particularly for international patients, thereof extracted nucleic acids) in separate dry ice shipment for molecular target identification as usual (mandatory).