

Product Profile Services

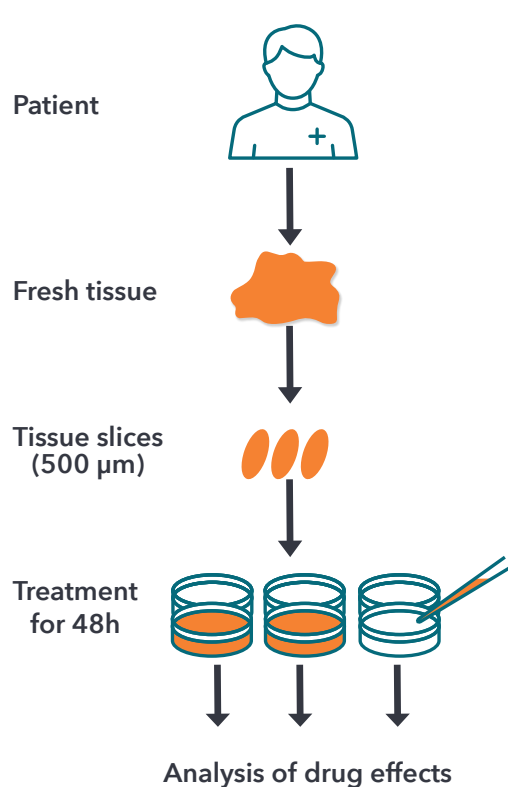
Drug Profiling Service

Overview

In order to improve anti-cancer drug development and personalized therapies, novel and highly predictive *in vitro* drug testing systems are needed to examine the characteristics of each individual tumor. Indivumed has developed a preclinical drug testing platform based on precision cut cancer tissue slices (PCCTS) that is suitable for the investigation of anti-cancer drug effects in the natural tumor microenvironment. Indivumed Services offers the cultivation of tumor tissue slices which enables comprehensive drug testing taking into account the complexity of the tumor and its microenvironment.

Workflow

Tumor tissue is collected immediately after resection and subsequently sliced into 500 μm slices. These are randomly transferred to 24-well plates and can be cultivated for up to 48 hours. Due to heterogeneity of the tissue we perform triplicates.



Collection of human tumor tissue material and clinical data

According to customer's specification with regard to tumor entity, pre-treatment, subject group, etc.

Tissue preparation and treatment with compounds

Use Indivumed Services tissue expertise for your experiments. Experimental layouts with different compound doses and incubation times up to 48 h.

Analysis of drug effects, for example

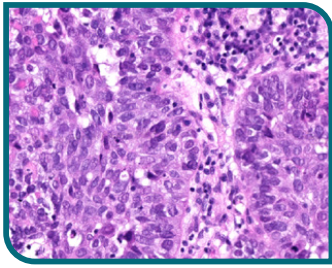
- Immunohistochemistry
 - Determination of Tumor Content
 - Immune Infiltration Pattern
 - Co-expression of Biomarkers on a single section
- Gene Expression
 - Mutation Profiling
 - Gene and/or mRNA expression
 - Spatial Transcriptomics
- Multiplex Cytokine Profiling (Meso Scale Discovery)
- Evaluation of Cytotoxicity (LDH-release)

Scientific reporting

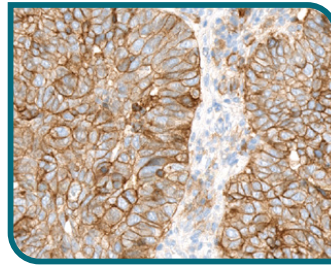
Reports include raw data, analysis results, pathology report and clinical information from tissue donors.

Variety of read outs

Evaluation of PD-L1 expression via chromogenic IHC



H&E

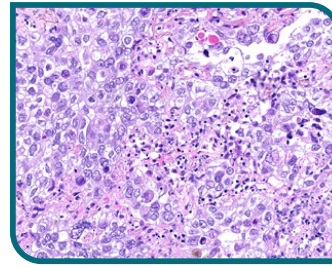


PD-L1

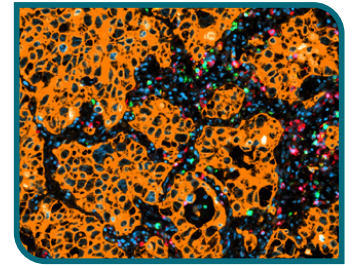
Anti-PD-L1 IHC of PCCTS at timepoint T0.

PCCTS from a patient diagnosed with NSCLC were analyzed for expression of PD-L1 at T0. Strong membranous anti-PD-L1 staining was detected in the tumor cells.

Identification of Tcell populations via multiplex IHC



H&E

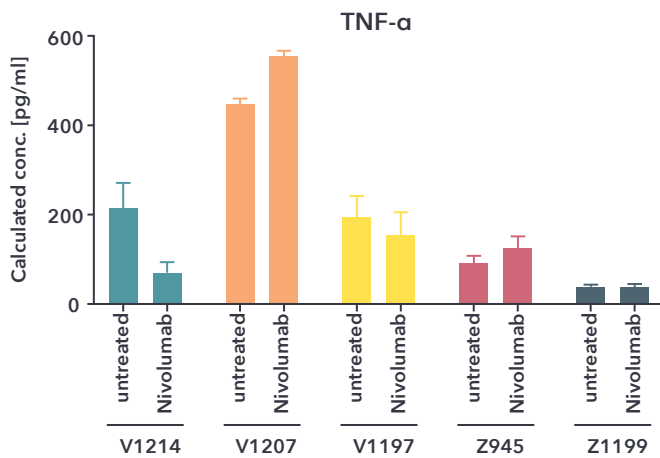


CD3, CD8, pan-CK

Fluorescent anti-CD8/CD3/pCK mIHC of PCCTS after cultivation for 24 hours.

PCCTS from a patient diagnosed with NSCLC were cultivated for 24 hours and analyzed for expression of CD8 (green), CD3 (red), Pan-CK (orange), DAPI (blue) by mIHC.

Measurement of Cytokine release after Nivolumab treatment



Benefits of Individumed Services Precision Cut Cancer Tissue Slice Platform

- Morphological integrity of PCCTS (tumor cells, stromal cells, immune cells) incl. tumor microenvironment
- Complete set of clinical data available from each patient
- Fresh tissue will be delivered within two hours after surgery
- Viable PBMCs can be isolated from the same patient

About Indivumed Services

Indivumed Services, a Crown Bioscience Company, is a global contract research organization (CRO) that offers an industry-leading oncology biobank and a range of service platforms to advance oncology and immunology drug discovery and development.

Holding a unique biobank of clinical specimens, unrivalled in quality and associated clinical history, which currently totals almost one million patient samples, the company partners with extensive clinical network of more than 60 entities in the United States, Europe, and Asia providing direct and controlled access to relevant surgical biospecimens and blood samples.

Further known for their enhanced immunohistochemistry and spatial transcriptomics, Indivumed Services' platforms complement a range of established Crown Bioscience capabilities supporting biomarker discovery.

Contact

Europe Tel.: +49 40 69 63 572 0

North America Tel.: +1 (301) 228 9739

Email IndivumedServices@crownbio.com
www.IndivumedServices.com

