

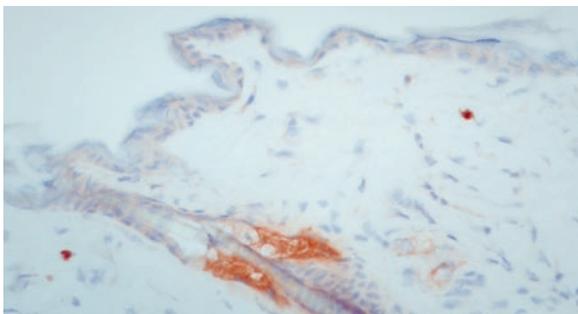
TISSUE CROSS REACTIVITY

TPL Path Labs offers services not only for your preferred tissue biomarker, but also for characterising novel large molecules such as therapeutic monoclonal antibodies in your pipeline. For this purpose, we are capable to provide the full service required for executing **Tissue Cross Reactivity (TCR)** studies.

To offer customised TCR services with validated study-specific protocols reflecting the regulator's exact requirements and your needs in a cost- and time efficient manner, we use a three phase approach.

- **PHASE 1: Initial assay & protocol optimisation**
- **PHASE 2: Optional preliminary non-GLP TCR screening**
- **PHASE 3: Full GLP cross reactivity study**

After screening a limited tissue panel in phase 2, the main GLP-compliant TCR study is performed on a panel of 38 human tissues/organs from a minimum of three donors as required by both, FDA and EMA.



CD34 Tissue Cross Reactivity validation study (mouse skin)

EVALUATION OF STAINING RESULTS

On top of expert analysis we also offer digital scanning of whole slides to illustrate pertinent staining and share with you your projects' specific progress. Furthermore, we offer computer based slide annotation and ordinal categorical evaluations (grades, H-scoring) as well as quantitative approaches using image analysis on wholly scanned slides.



ZEISS Axio Scan. Z1

TPL Path Labs
Sasbacher Straße 10
79111 Freiburg/Germany
Phone: +49 761 456886-0
info@tpl-path-labs.com



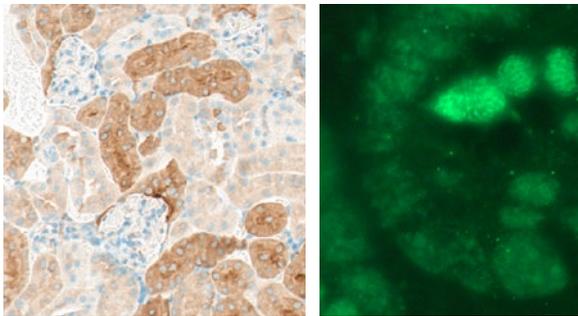
That's New!

IMMUNO- HISTOLOGY

Beside our comprehensive experience in classical Histopathology TPL Path Labs also provides state-of-the-art **Immunohistochemistry (IHC) and Immunofluorescence (IF)** on cell cultures, animal models and human tissue samples. Highly experienced in the application of both techniques, we routinely use **versatile chromogenic based reporting systems** to specifically label tissues containing a wide variety of targets. Furthermore we deploy **highly sensitive IF** to detect e.g. small amounts of biomarkers and to reveal precise subcellular protein localisation.

Our services include “Discovery style” method development for novel targets and antibody validation.

Depending on your special needs, the most suitable techniques and antibodies are defined to achieve optimal results.

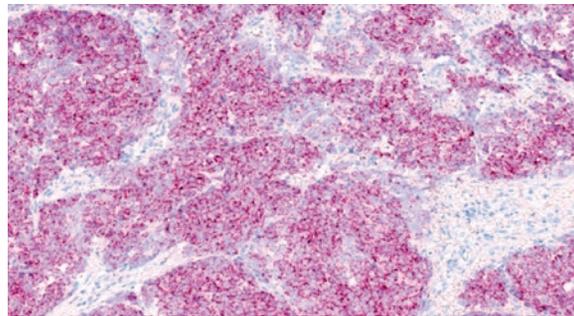


Ferritin heavy chain (mouse kidney, IHC) Ki-67 (mouse intestine crypts, IF)

IN SITU HYBRIDISATION

Once considered as a fastidious and difficult assay, ISH is now gaining a renewed interest as an automated medium for high throughput analyses, notably through the development of novel techniques. Recently we established the **RNAScope® technology** in our laboratories which is known for very specific results and mainly characterised by assay robustness and high sensitivity.

Besides providing services on RNA level tailored to your specific needs in R&D projects, we are also able to perform **Fluorescence In Situ Hybridisation (FISH)** for clinical studies and diagnostic purposes on DNA level, mainly in the diagnostic field of skin cancer. We just established a melanoma – multicolour FISH, performed with a panel of four probes, which are used as markers for chromosomal aberrations, typically occurring in this disease pattern. This ancillary diagnostic instrument can help you to distinguish benign nevi from malignant melanomas in daily practice.



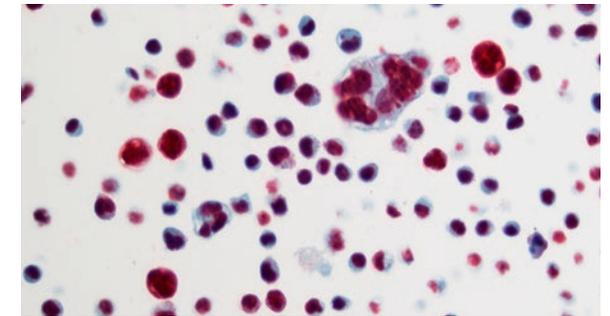
Chromogranin A (Merkel-cell-carcinoma, ISH, RNAScope®)

STAINING OF IN VITRO MATRICES

Our high GLP/GCLP-grade proficiency level in conventional histopathological and immunohistochemical techniques on animal/human tissues has laid the foundation to additionally offer an innovative portfolio of sensitive methods ready to be applied on your 2D and 3D culture models or other representative matrices.

This might be of special interest for efficacy testing of your cosmetic and dermatologic products. In the field of cosmetics industry, you might want to use in vitro study models as an alternative to experiments on animals.

We would be happy to receive your specifically treated and fixed cells or other appropriate in vivo-like test systems of your choice and will take care of all subsequent processes according to your special request.



Ki-67 (HeLa cells, IHC)