

Antibody Establishment @ CEP

We also offer the establishment of antibodies (Ab). For this, a regular project number (= E-number (see our "SOP submission": <https://web.med.tum.de/path/vergleichende-experimentelle-pathologie/formulare/>) must always be assigned.

Please note "Ab establishment + *name of antibody*" as the project title on the E-form.

The antibody search can be done either via literature search or internet search. We generally recommend the Biocompare website (https://www.biocompare.com/pfu/110447/soids/3686-872549/Antibodies/Immunohistochemistry_Antibodies) for research.

- Various parameters (e.g., host species, reactivity species, clonality) can be selected on the left-hand side. For immunohistochemistry (IHC) on FFPE tissue, please always select "**Immunohistochemistry-fixed.**"
- For mouse tissues, preferably select Rabbit antibodies, but always a different animal species as target tissue (see figure on the right).
- Monoclonal (high specificity & affinity, low avidity) Ab is preferred over polyclonal AK (specificity and affinity variable/higher avidity).

Further search options: Citeab, Antibodypedia

We are happy to assist with finding the right antibody and recommend discussing with us **before** you order!

In general, you are responsible for buying the antibody that you will then provide for us to use for establishment and immunostainings. When billing the performed CEP services, we will grant you credit for the provided antibody.

Bring the labeled antibody (entire vial) + associated AK datasheet (not the safety data sheet; either included in the delivery or available on the supplier's homepage) to our office during opening hours. Please ensure proper cooling until the antibody arrives in our lab.

The address is:

**Institute of Pathology TUM
Comparative Experimental Pathology
c/o Petra Hauke, room 0.02
Trogerstr. 18
81675 Munich**

If you want to send the antibody, please inform us about the shipment by e-mail, stating the e-number in the e-mail subject.

Ideally, you should also provide us with positive and negative control tissue (either blocks or empty sections, mounted on Superfrost Plus slides, 2 µm).

Mouse and human normal tissue are usually available in our laboratory.

Ab-establishment time can vary from 2 weeks to several months, depending on AK performance*

Of note: We work with automated IHC staining systems and do not perform manual IHC.

***What defines a good antibody performance?**

- *molecular specificity: specificity for the molecular structure of the epitope*
- *diagnostic specificity: positivity only in the expected cell compartment/cell type/tissue? -> „false positive“ /cross-reactivity -> comparison with other antibodies or different methods (Western Blot/PCR)*

The image shows a screenshot of the Biocompare website's search filter interface. The filters are set as follows:

- Method:** Immunohistochemistry - fixed (32)
- Host Species:** Rabbit (32)
- Reactivity:** Mouse (32)
- Clonality:** Monoclonal (32)

Other visible options include Western Blot (102), ELISA (9), Flow Cytometry (31), Immunohistochemistry (63), Host Species: Mouse (435), Rat (22), Goat, Chickens/Bird, Guinea Pig, Reactivity: Human (84), Rat (29), Bovine (2), Porcine (2), Rabbit (2), Clonality: Polyclonal (2184), and Modification Type: Phosphorylated, Acetylated.

- *analytical sensitivity: minimal amount of antibody, which still produces a positive reaction/stain (polyclonal ab can be more sensitive than monoclonal ab)*
- *diagnostic sensitivity: do all expected cell types/tissues stain positive?*