

Aug 28, 2024



Immunohistochemistry

DOI

dx.doi.org/10.17504/protocols.io.rm7vzjem2lx1/v1

Tiziano Balzano¹, Javier Blesa¹, Jose Obeso²

¹HM CINAC; ²CIBER and Fundación HM Hospitales. ASAP-020505



Jose Obeso

CIBER and Fundación HM Hospitales. ASAP-020505

OPEN ACCESS



DOI: dx.doi.org/10.17504/protocols.io.rm7vzjem2lx1/v1

Protocol Citation: Tiziano Balzano, Javier Blesa, Jose Obeso 2024. Immunohistochemistry. protocols.io

https://dx.doi.org/10.17504/protocols.io.rm7vzjem2lx1/v1

License: This is an open access protocol distributed under the terms of the Creative Commons Attribution License, which permits

unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

Protocol status: Working We use this protocol and it's

working

Created: August 28, 2024

Last Modified: August 28, 2024

Protocol Integer ID: 106574

Funders Acknowledgement:

ASAP

Grant ID: ASAP-020505

Abstract

Immunohistochemistry protocol

- 1 Wash sections 3 x 5 min with Tris buffered solution (TB). 2 **Antigen retrieval:** incubate secions 30 min in citrate buffer at 37°C. 3 Wash sections 3 x 5 min with TB. 4 Wash sections 10 min with Tris buffered-saline solution (TBS). 5 **Endogenous peroxidase blocking:** incubate sections in a solution consisting of $3\% H_2O_2 + 10\%$ methanol diluted in distilled water for 20 min. 6 Wash sections 3 x 15 min with TBS. 7 **Incubation in blocking solution:** Incubate sections in a solution consisting of 10% of normal serum (from the same species as the secondary antibody) + 0.3% of Triton X-100 diluted in TBS at RT for 3 hours. 8 Primary antibody incubation: incubate sections 64hr at 4°C with primary antibody diluted in blocking buffer. Negative controls are incubated with blocking buffer alone.
- 9 Wash sections 4 x 15 min with TBS.
- 10 Secondary antibody incubation: incubate sections 2hr at RT with biotinylated secondary antibody diluted in blocking buffer.
- 11 Wash sections 4 x 15 min with TBS.
- 12 **ABC kit incubation:** incubate sections in a solution with avidin-biotin horseradish peroxidase conjugate (ABC) for 45 min at RT.
- 13 Wash sections 2 x 15 min with TBS.



- 14 Wash sections 1 x 15 min with TB.
- 15 Signal was visualized incubating sections in a solution consisting of DAB $0.05\% + H_2O_2 0.003\%$ diluted in TB during 5-10 min under microscope control.
- 16 Wash sections with distilled water and counterstain with hematoxylin for 3 min.
- 17 Wash section with running water for 2 min.
- Dehydrate sections by immersion in ascending ethanol (5 min each) followed by clearing in 18 xylene for 2 x 10 minutes.
- 19 Mount the cover slides with DPX.