



Immunofluorescent assay

Binnypreet Kaur^{1, 2}, Drahomíra Faktorová^{1, 2}, Priscila Peña-Díaz¹ and Julius Lukeš^{1, 2}

¹Institute of Parasitology, Biology Centre, Czech Academy of Sciences, 37005, České Budějovice, Czech Republic ²Faculty of Sciences, University of South Bohemia, 37005, České Budějovice, Czech Republic

[dx.doi.org/10.17504/protocols.io.hf4b3qw](https://doi.org/10.17504/protocols.io.hf4b3qw)

Protist Research to Optimize Tools in Genetics (PROT-G)

Julius Lukes

 Binnypreet Kaur   

PROTOCOL STATUS

Working

We use this protocol in our group and it is working

- 1 Preferably night before, make 4% paraformaldehyde (w/v) in PBS and incubate O/N at 37°C
- 2
- 3 Spin down the cells 3000RPM for 2min and discard the supernatant in formaldehyde waste
- 4 Mix the pellet with 500ul of fixer in the hood and incubate the slides for 10min in humid dark chamber at room temperature
- 5 Remove excess of the paraformaldehyde by tilting the slide on the paper
- 6 Permeabilization with chilled methanol for 30min then 0.2% 1XPBS triton for 20min in dark
- 7 Slightly wash the cells with 1x PBS to remove detergent and make it air dry
- 8 Incubate the permeabilized cells with 5% milk prepared with 1X PBS+0.05% Tween 20 for 30min to 2h
- 9 Incubate the cells with primary antibody diluted in 5% milk (1X PBS+0.05% Tween 20) at 4°C
- 10 Wash the slides 3 times with 1X PBS before adding secondary antibody diluted in 1% BSA (w/v) and incubate for 1h

- 11 Wash the slides 3 times in 1X PBS for 5min and tap away the moisture, to let it air dry
- 12 Drop on each sample 1 drop of Prolong Gold Antifade with DAPI(Invitrogen P36935)
- 13 Mount the slide with coverslip and seal with nail polish
- 14 Let it dry in the humid chamber for 10 min and can store in dark at 4°C until observing under the microscope.
- 15 Wash the slides 3 times with 1X PBS before adding secondary antibody diluted in 1% BSA (w/v) and incubate for 1h. After incubation washes the slides 3X times with 1X PBS. Make it air dry.
- 16 Add one drop of Prolong Gold Antifade with DAPI(Invitrogen P36935) Mount the slide with the coverslip and seal with nail polish.
- 17 Let it dry in humid chamber for 10min and so on.
- 18 Store it in dark at 4°C until use



This is an open access protocol distributed under the terms of the [Creative Commons Attribution License](https://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited