## PROTOCOL FOR IMMUNOSTAINING OF BETA-CATENIN IN CULTURED CELL LINES

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**Note:** This protocol is for cultured cells in 48-well plate.

- 1. Cell cultured on 48-well plate.
- 2. Remove the media.
- 3. Fix the cells with methanol: 250 μl/well, -20°C, 15 minutes.
- 4. Wash  $\times$  2 with PBS (add PBS, incubate 5 minutes, remove PBS = wash).
- 5. Add 1% NP-40, 250 μl/well, RT, 10 min.
- 6. Wash  $\times$  2 with PBS.
- 7. Add goat serum 200 µl/well, 30-60 minutes, RT.
- 8. Remove the serum.
- 9. Add whole goat serum containing primary antibody; 1: 250, 250 μl/well, RT, 1 hour
- 10. Wash 2 × with PBS
- 11. Add secondary antibody; 1: 2000, 250 µl/well, RT, 1 hour
- 12. Wash 2 × with PBS (note: for DAB staining, see below)
- 13. Add streptavidin-Alexa; 1: 500, 200 μl/well, RT, 30 min
- 14. Wash 2 × with PBS
- 15. Add PBS 400 ul/well
- 16. Proceeding under microscopy.

## For immunocytochemistry (DAB staining):

- 1. Proceed with the same steps of 1-12 above.
- 2. The secondary antibody is 1:100~1000.
- 3. Add DAB mixture, 250ul/well.
- 4. Monitor the color develop (dark brown) under the microscopy.

## For ABC staining:

- 1. After secondary antibody (Biotin-labeled), add "Linker", 4 drops into the well, incubate for 20min at RT.
- 2. Wash 2 X with PBS.
- 3. Add "Label", 4 drops, for 20min incubation at RT.
- 4. Wash 2 X with PBS.
- 5. Add the substrate solution to develop the color.
- 6. Wash with PBS to stop the color development.