Antibody selection

Actome’s Protein Interaction Coupling (PICO) technology enables the detection and quantification of single proteins and protein interactions in a highly sensitive manner. For the PICO assay to work, a pair of antibodies is required for each target. A target can either be (1) a single protein, (2) a protein interaction or (3) a post-translational modification of a protein. Since Actome does not provide antibody panels yet, our customers are free to choose any antibody pair for their experiments.

Careful selection of the antibodies for the PICO assay is important:

1. To detect and quantify a single protein, it is crucial to use a pair of antibodies each targeting a different, concurrently accessible epitope on the target protein.
2. To target a protein interaction, one antibody directed against each of the interaction partners is required.
3. To investigate post-translational modification (PTM) of a target (e.g. phosphorylation), a PTM-specific antibody and another one directed against the protein are required.

Our assay works equally well with monoclonal as well as with polyclonal antibodies. However, we recommend using monoclonal antibodies, if possible, since they are often better characterized and defined by the antibody producer.

For the best PICO labeling efficiency, we recommend purifying your antibody with our PICO Antibody Purification (AP) Kit prior to labeling. The PICO AP Kit efficiently removes any non-antibody proteins (e.g. BSA), primary amines, and other chemicals (e.g. azide, TRIS) that can interfere with the labeling reaction.

Antibody purification with:
- PICO AP Kit (#PICO-000050)

PICO labeling with:
- PICO aAC Kit (#PICO-000030)
- PICO aCALL Kit (#PICO-000040)