The initial step in the Protein Interaction Coupling (PICO) workflow is the labeling of the antibodies with unique oligonucleotide labels (PICO DNA Labels). The PICO labeling workflow includes:

1. Conjugation of the antibody with Actomidin (PICO aAC Kit)
2. Loading of the conjugated antibody with PICO DNA Labels (PICO aCALL Kit)

The PICO aAC kit provides up to 80% Actomidin conjugation efficiency. To determine the conjugation efficiency, we recommend performing a quality control step using automated electrophoresis, for example with the Agilent Bioanalyzer or a similar system.

After conjugation, the antibodies are loaded with the PICO DNA Labels using the PICO aCALL Kit. The kit provides high labeling efficiency (free label content below 3%) together with simultaneous removal of unbound PICO DNA Labels by washing steps. The precise concentration of the labeled antibodies is determined by a digital PCR measurement. The entire labeling process requires approximately 2 hours of hands-on time as a two-day process. The labeled antibodies are stable for at least 2 months at 4°C.

For the highest 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 that can interfere with the labeling reaction.