



proFIRE®

pure protein-DNA conjugates

proFIRE® is the only instrument on the market which is specifically designed for the automated purification of DNA-protein conjugates, delivering consistent and superior conjugate quality for your experiments. The **proFIRE®** solution provides you with simply pure protein-DNA conjugates. Conventional methods yield heterogeneous mixtures of often ill-defined conjugates.

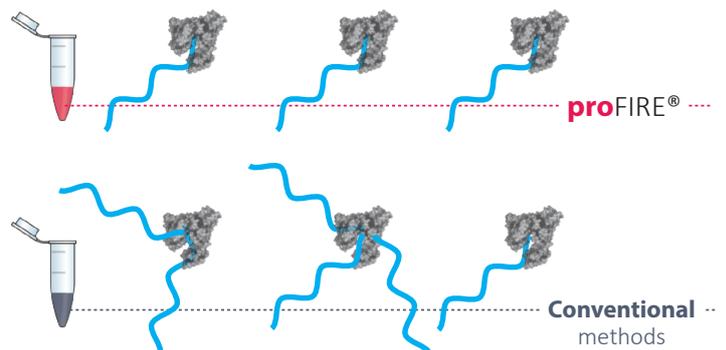
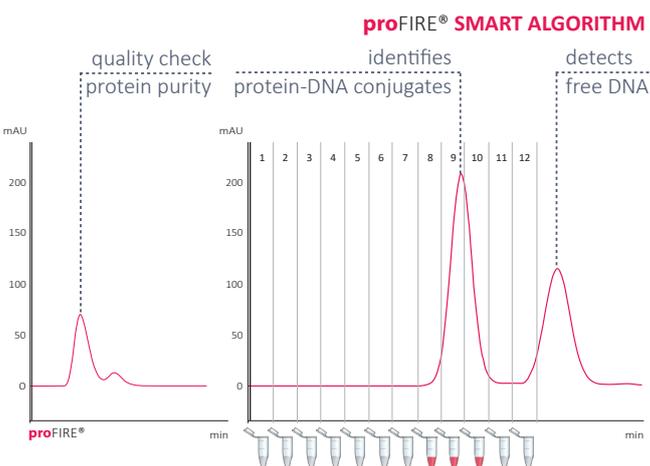
proFIRE® tablet-based software allows real-time monitoring of your conjugate purification.

proFIRE® provides a fully automated workflow, with results in just 30 minutes.

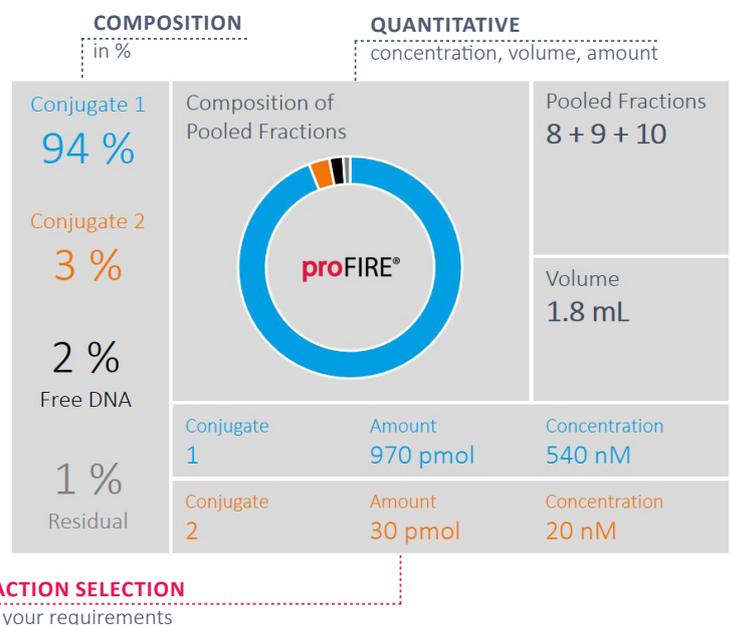
proFIRE® optimized injection port geometry improves and facilitates sample loading.

proFIRE® portable fraction collector for easy sample handling.

Software compared to nanodrop – Accurate determination of yield (no need to get the concentration with another instrument).

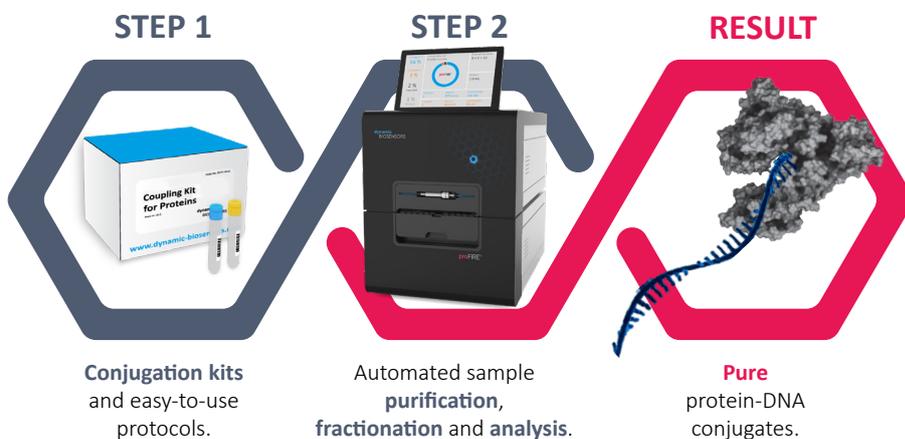


Comparison of conjugation yield shown in **proFIRE®**



The proFIRE® Workflow

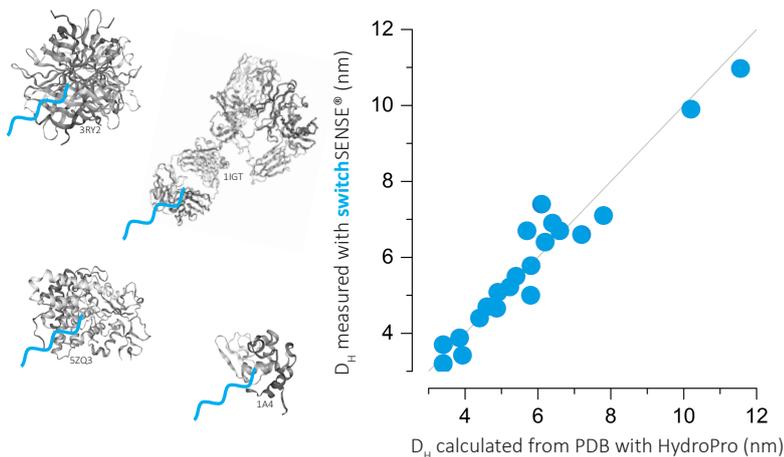
Save time without diminishing quality – receive pure conjugates after 30 minutes.



Sizing made easy

Various protein-DNA conjugates were synthesized using the proFIRE® technology. As a quality-control step, the correct size of the proteins was verified using the switchSENSE® technology.

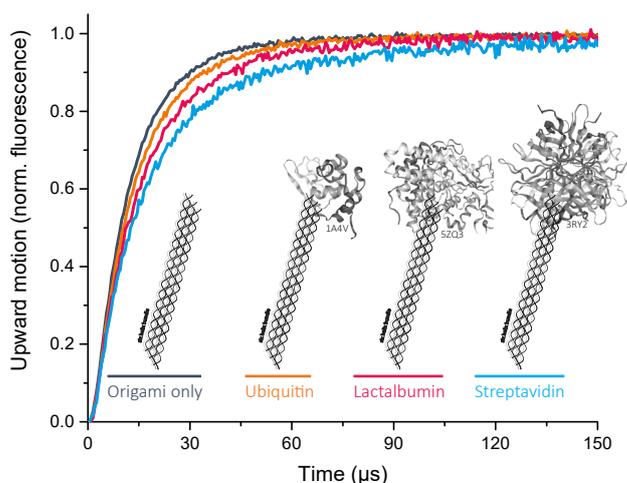
The switchSENSE® software compares the measured time-resolved nanolever switching dynamics to a library of solutions for different protein diameters and identifies the protein diameter based on the best match [J. Phys. Chem. B 118:597 (2014)].



DNA-Origami

Have you ever thought about functionalizing your DNA-Origami with a protein of your choice?

The proFIRE® solution provides an easy and straight-forward workflow to design any protein-DNA conjugate ready for your DNA-Origami application.



Application example for DNA-Origami
Measure the size of proteins as small as ubiquitin and form complexes of any size on DNA-Origamis with switchSENSE®.

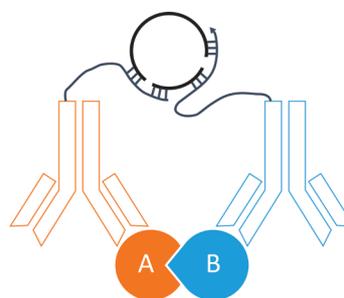
proFIRE® is technically compatible with switchSENSE® instruments DRX & DRX². Contact info@dynamic-biosensors.com to speak to our application team about methodologies or to arrange a demonstration.

switchSENSE® and proFIRE® are bioanalytical technologies by Dynamic Biosensors. Instruments, biochips, and kits are engineered and manufactured in Germany.

Proximity-Ligation-Assay

Have you struggled with purifying your antibody-DNA conjugate for your Proximity Ligation Assay?

proFIRE® enables you to use DNA of any length up to 150 nts in your conjugation. No waste of time to establish purification protocols from scratch. proFIRE®'s smart software automatically tailors methods to your DNA-length. Use any antibody (primary or secondary) or nanobody of your choice. proFIRE® features autonomous recognition and identification of protein-DNA conjugate peaks.



Oligonucleotides conjugated antibodies are used for the detection of the protein targets. Addition of a connector oligo leads to a formation of a circular template which yields in a rolling amplification.