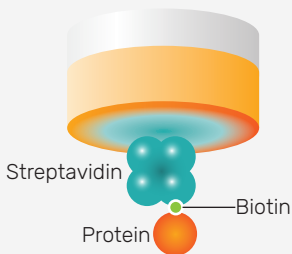
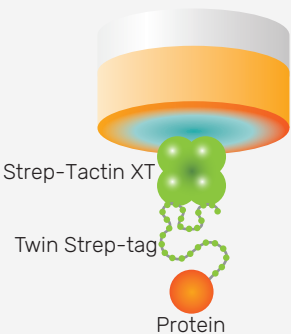
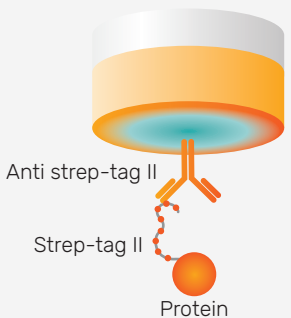


Biosensor selection for proteins tagged with Strep-tag®II and Twin-Strep-tag®

Introduction: Proteins are purified using different types of tags. This guide makes recommendations on selection of right BLI biosensors for quantitation and kinetic analysis of tagged proteins.

Streptavidin Probe	Strep-Tactin XT Probe	Custom Anti Strep-tag II probe
Optimized for biotinylated and Avi tagged proteins.	Optimized for proteins tagged with Twin-Strep-tag®: Trp-Ser-His-Pro-Gln-Phe-Glu-Lys-(GGGS)2-GGSA--Trp-Ser-His-Pro-Gln-Phe-Glu-Lys	Optimized for proteins tagged with Strep-tag®II: Trp-Ser-His-Pro-Gln-Phe-Glu-Lys
		
✓ Biotinylated proteins ✗ Twin-Strep-tag fusion proteins ✗ Strep-tag-II fusion proteins	✗ Biotinylated proteins ✓ Twin-Strep-tag fusion proteins ✗ Strep-tag-II fusion proteins	✗ Biotinylated proteins ✗ Twin-Strep-tag fusion proteins ✓ Strep-tag-II fusion proteins

Biosensor	Ligand	Target analyte	Affinity
Strep-Tactin XT	Strep-Tactin®XT	Twin Strep-tag fusion proteins	Low pM affinity
Custom Anti strep-tag II	Anti strep-tag II antibody	Strep-tag II fusion proteins	Low nM affinity
SA Probes	Streptavidin	Biotinylated proteins	fM affinity

Note: Streptavidin sensors that are used with biotinylated biomolecules are not suitable for use with Twin-Strep-tag and Strep-tag II fusion proteins. Even though Strep-Tactin has been engineered from Streptavidin, streptavidin itself has a very weak binding to Twin-Strep-tag and Strep-tag II (μ M affinity) making it unsuitable for BLI analysis.