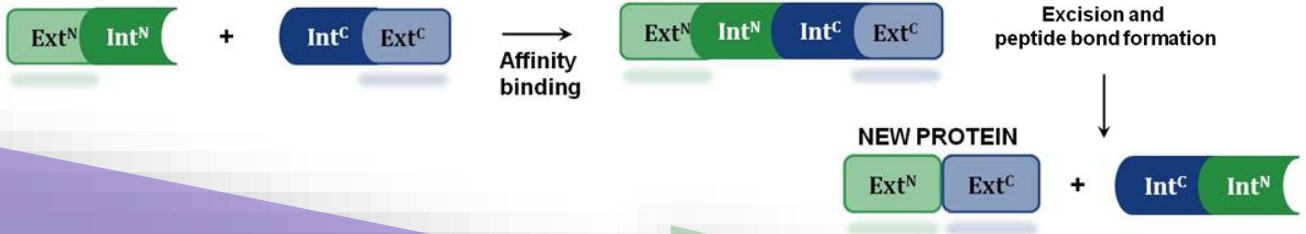


# CLICK-DX

## SPLITTERA for DIAGNOSTICS

### Split Intein mediated Protein Ligation



## SPLITTERA

Split-intein site-specific conjugation platform

## ORIENTED

immobilization of molecules to  
**INCREASE IVD  
SENSITIVITY**



### Business Model

- Technology evaluation agreement
- Joint development agreement
- R&D license
- Commercial license



### Intellectual property

- SPLITTERA technology
- Fully owned and patented (WO2013/045632)



### Universal

- **Standardization** of IVD kits manufacturing
- Intein-based immobilization



### Fast and simple

Intein-based immobilization reaction:

- Efficient (yields > 85 %)
- Highly specific
- Fast
- Mild reaction conditions



### Versatile

- Possibility to immobilize up to **4 different detecting molecules** using orthogonal intein pairs



### Additional features

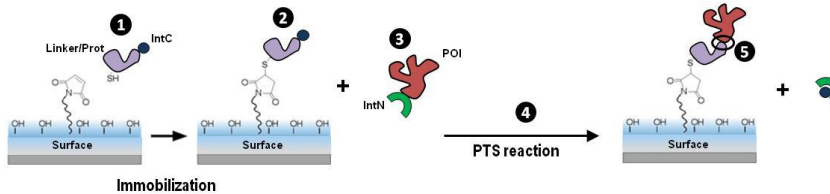
- **Detection sensitivity enhancement:** all molecules are **oriented as desired**
- Immobilized **protein sequence is not modified**
- Immobilized **protein activity is maintained**

# CLICK-DX

## SPLITTERA for DIAGNOSTICS

### SITE-SPECIFIC ORIENTED IMMOBILIZATION OF MOLECULES

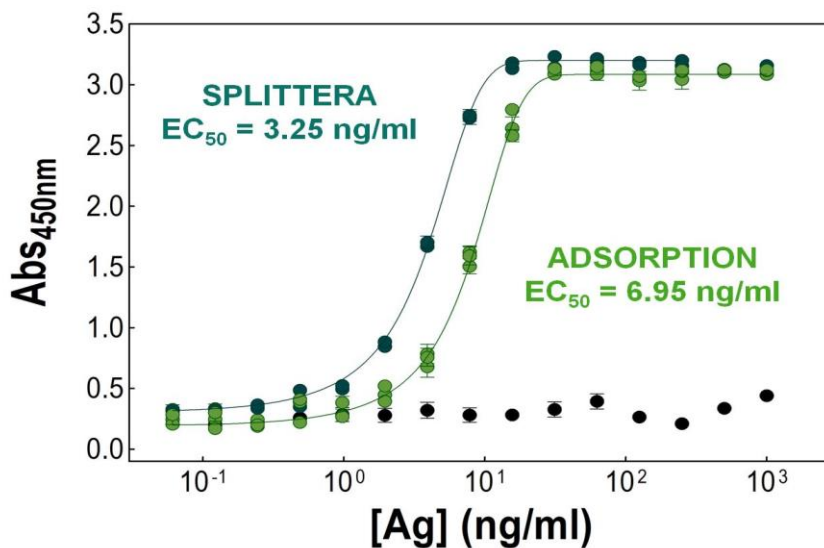
SPLITTERA allows to efficiently immobilize any recombinant POI on a surface (i.e. bead, matrix, gold particles), in a controlled, homogeneous and defined orientation



- ❶ IntC is chemically synthesized or recombinantly produced.
- ❷ Attachment of IntC to a solid support is done through unique Cys, although other chemical methods are possible.
- ❸ The protein to be immobilized (POI) is fused to IntN at DNA level and recombinantly expressed in the desired host.
- ❹ Specific and high affinity PTS reaction between inteins.
- ❺ New peptide bond formed that keeps POI covalently immobilized with the desired orientation. Intein complex is eliminated by washes.

### ADDED VALUE

Universal tool for the preparation of in vitro diagnostic (IVD) kits. Oriented immobilization of an antibody by SPLITTERA provides a 50% increase in the sensitivity:



Signal of an ELISA sandwich assay prepared by immobilizing the primary antibody by:

- a) adsorption
- b) SPLITTERA-Inteins

Possibility to immobilize up to 4 different detecting molecules using ZIP's orthogonal intein pairs.