

# A SELECTION OF HTRF ASSAYS FOR PPI IN SCIENTIFIC LITERATURE



Addressing the Interactome with Protein-Protein Assays

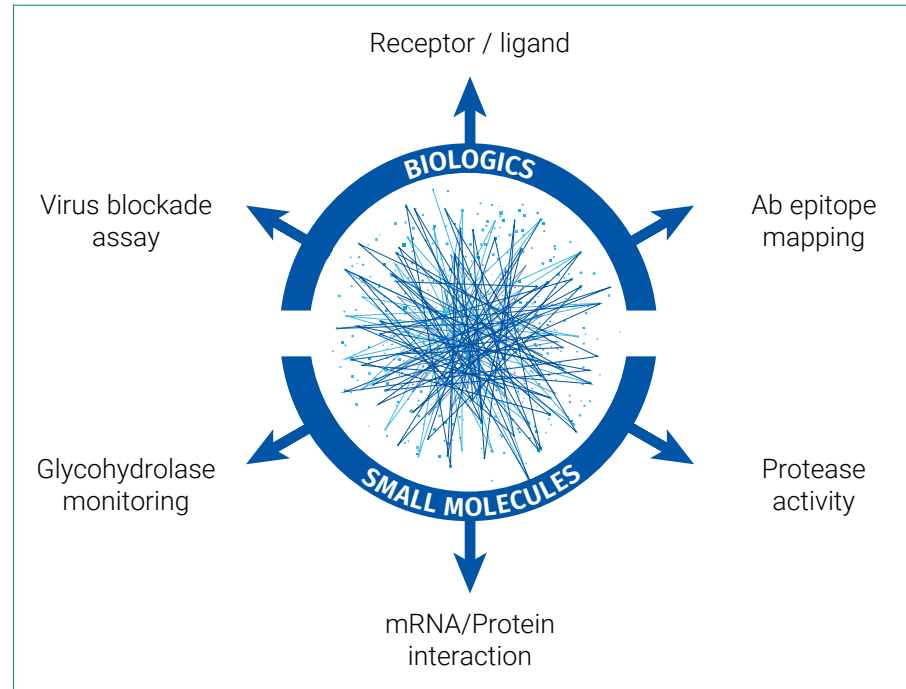
## Harnessing the Protein-Protein Interaction Biology

It is estimated that the human interactome covers approximately 400,000 protein-protein interactions (PPI). Regardless of the therapeutic area, understanding and modulating biomolecular complexes is one of the leading challenges for discovering innovative drugs such as biologics and small molecules.

Over the past several years, researchers have developed an extraordinary diversity of add & read assays with Cisbio HTRF reagents, including anti-tags, anti-species, Streptavidin, affinity tools, and PPI buffers.

This brochure is intended to reflect PPI versatility by showing six different examples taken from published papers.

The possibilities are truly unlimited. Our next example could be yours!



- Unlimited target configurations
- Straightforward add-and-read assays
- Comprehensive line of ready-to-use reagents & buffers
- Technical guide to facilitate the transition to HTRF

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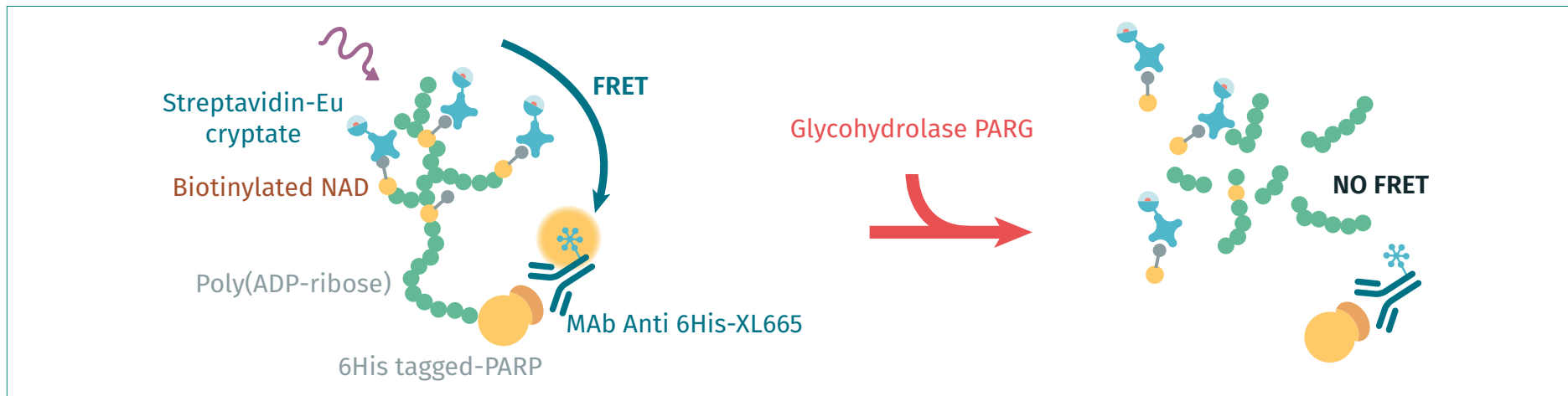
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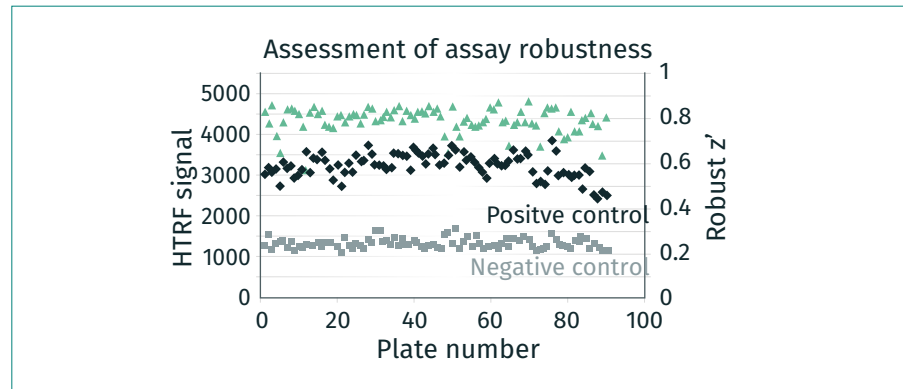
## SMALL MOLECULES

# Glycohydrolase Assay: Poly ADP Ribose-PARP Cleavage



### The context and why it is interesting:

- Post-translational modulator screening
- Addresses drug resistance mechanisms
- Program for oncology



A.I.J. Stowell et al. / Analytical Biochemistry 503 (2016) 58-64 Copyright © 2018 by Cisbio. Reprinted by Permission of Elsevier.

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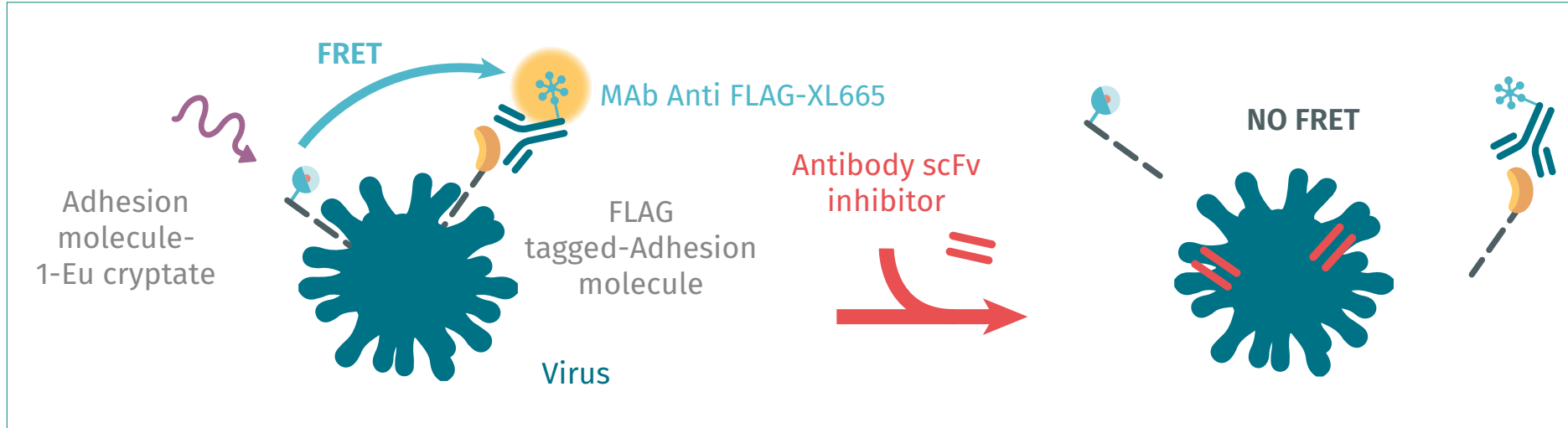
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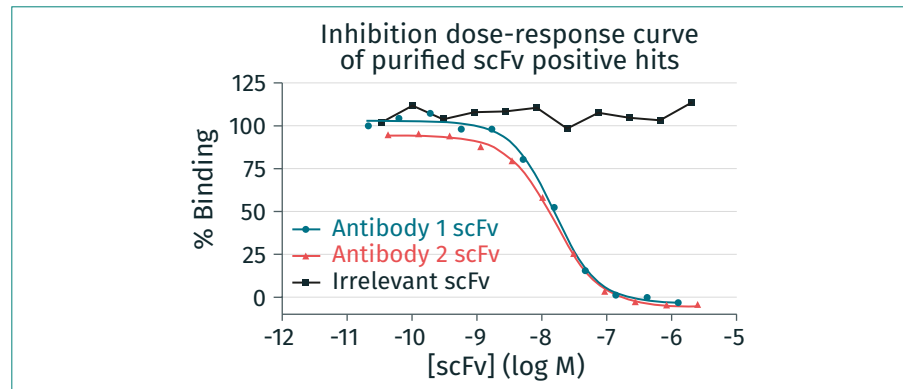
BIOLOGICS

# Human Rhinovirus Blockade Assay



## The context and why it is interesting:

- Virus/Intercellular Adhesion Molecule (ICAM) inhibitor screening
- Multi-site avidity binding assay
- Program for Chronic Obstructive Pulmonary Disorder (COPD)



Newton et al. / Journal of Biomolecular Screening 18(3) (2012) 237–246 Copyright © 2018 by Cisbio. Reprinted by Permission of SAGE Publications.

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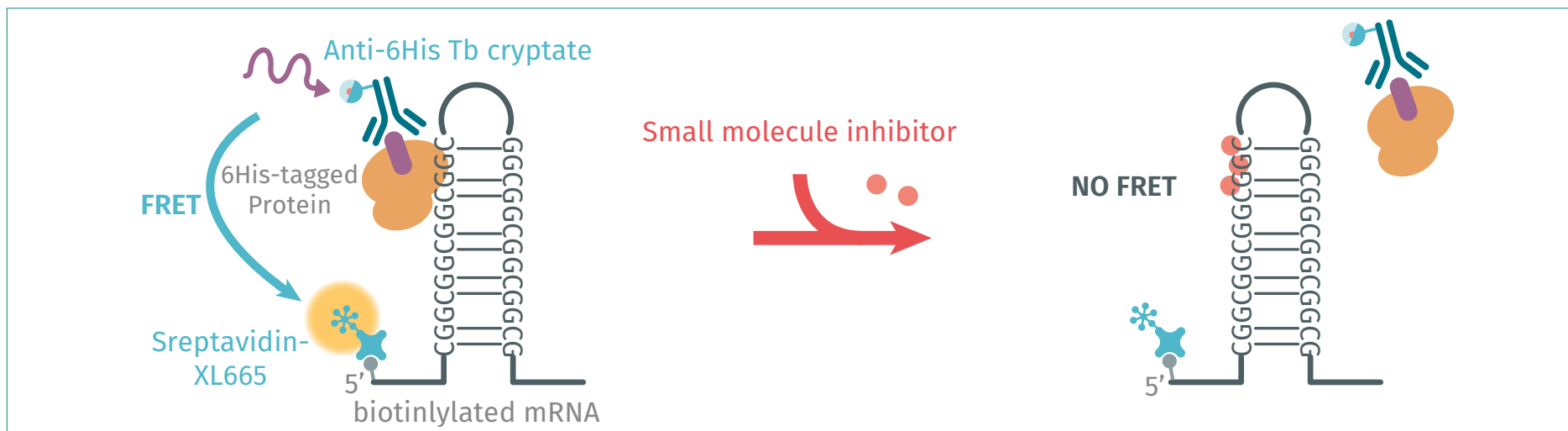
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## SMALL MOLECULES

## mRNA/DGCR8 Binding Assay



## The context and why it is interesting:

- Study of pre-mRNA splicing defects in Fragile X-associated Tremor Ataxia Syndrome (FTAX)
- Focus on loss-of-function action mechanism
- Program for neurological disorders

## Identified Binders

	1a	1b	1c	1d
Percentage displacement at 25 $\mu$ M	85 $\pm$ 1	91 $\pm$ 5	96 $\pm$ 9	87 $\pm$ 5
IC <sub>50</sub> $\mu$ M	13 $\pm$ 0.4	8 $\pm$ 0.3	13 $\pm$ 0.2	7 $\pm$ 0.2
Kd, nM	76 $\pm$ 4	38 $\pm$ 1	69 $\pm$ 5	50 $\pm$ 18

M.D.Disney et al. / ACS Chem Biol. 2012 October 19; 7(10): 1711–1718

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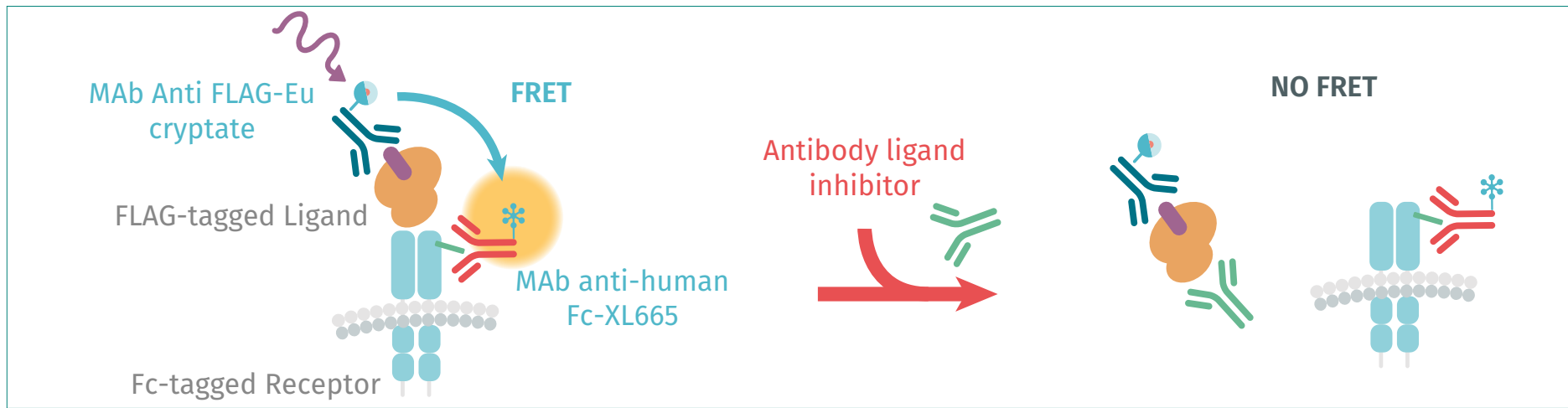
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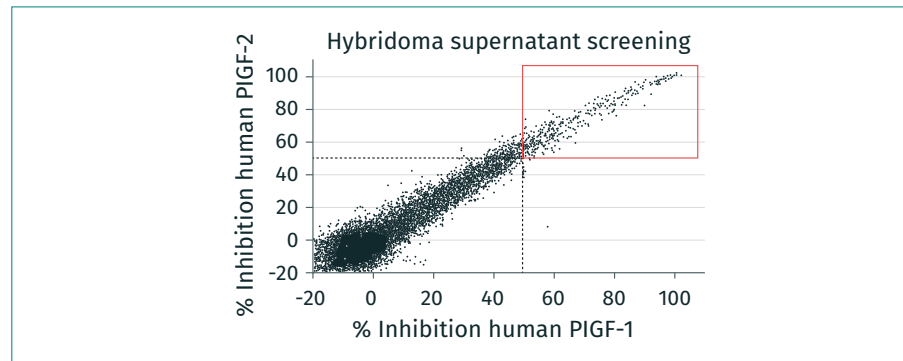
## BIOLOGICS

# Receptor-Ligand: VEGFR/PIGF1, 2 Binding Assay



### The context and why it is interesting:

- Identification of Anti human PIGF-1,2 blocking antibody
- Compatible with crude periplasmic extracts
- Biologics drug screening



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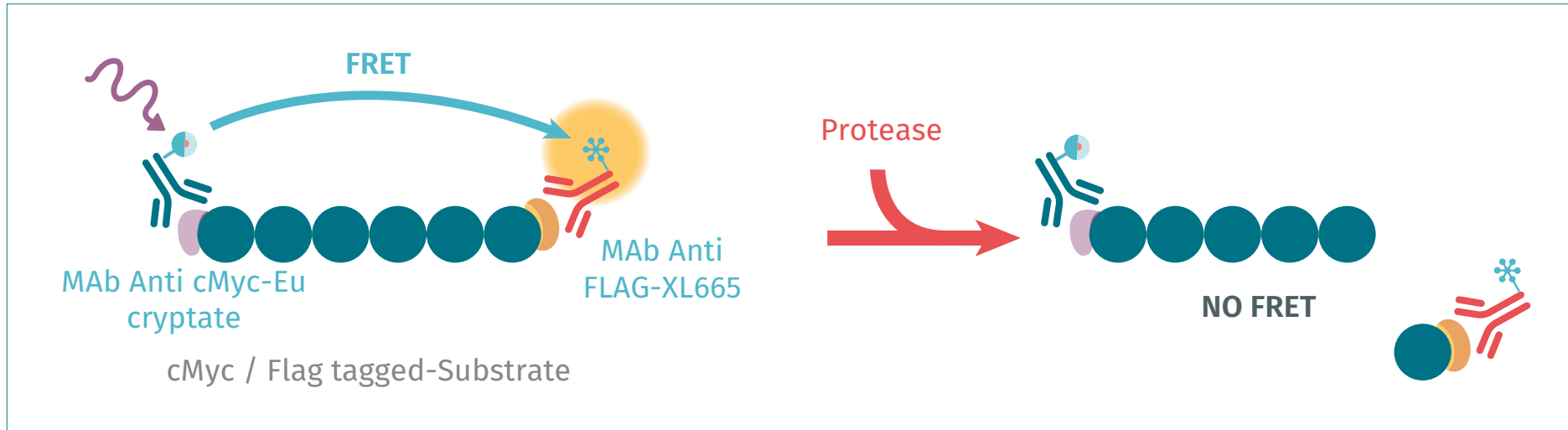
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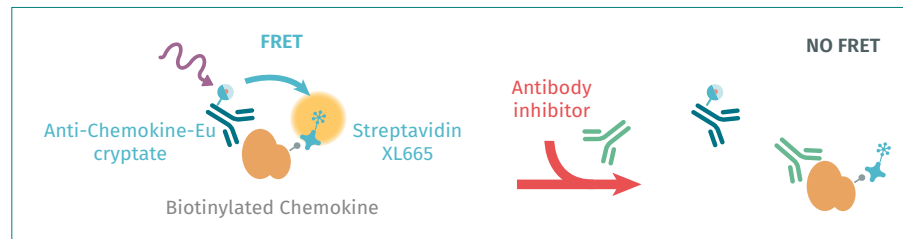
## SMALL MOLECULES

# DEN1 Protease Assay



### The context and why it is interesting:

- Protein stability regulation related to proteasomal degradation
- Pivotal role in cell cycle progression and embryogenesis
- Program for cancer



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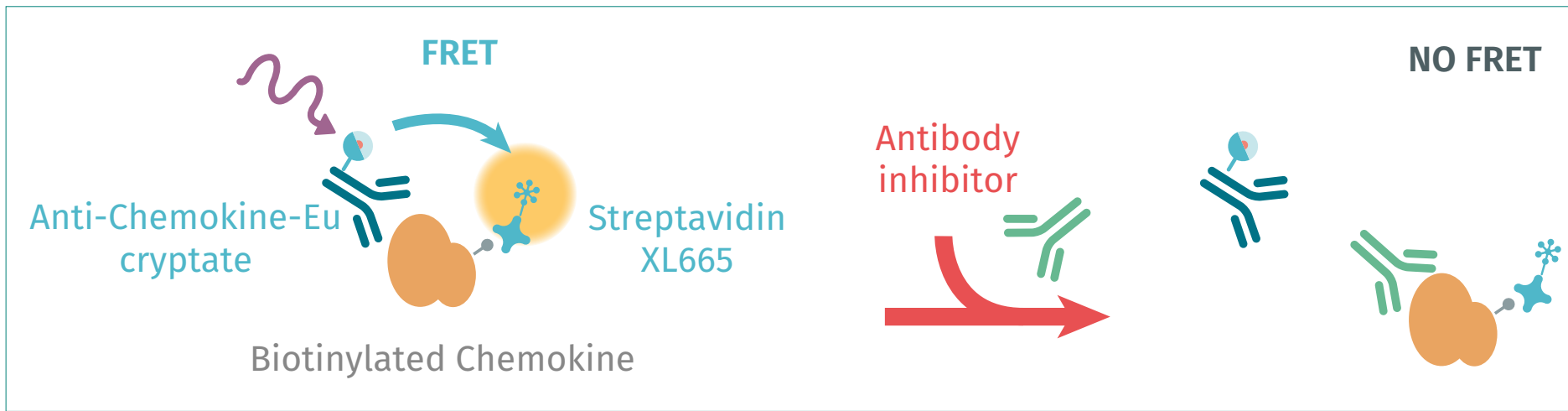
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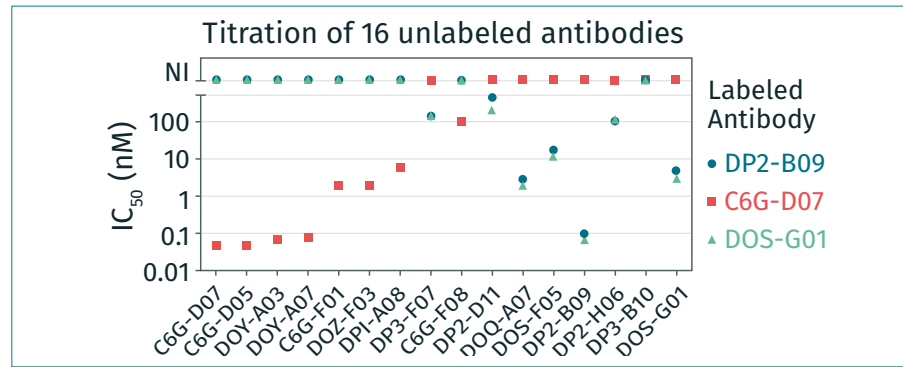
BIOLOGICS

# Antibody epitope mapping: CXCL13 Case Study



## The context and why it is interesting:

- Therapeutic antibody lead optimization programs
- Biologics epitope mapping and affinity maturation
- Bio-similar and bio-better drug development



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## DETECTION

# Choosing the Right Plate Reader

Choosing the suitable microplate reader ensures you'll get an optimal readout. A multimodal reader gives your research the ideal flexibility and expands the field of possibilities by measuring a wide range of technologies.

PerkinElmer offers multimode readers that are certified for use with HTRF technology. Certification involves rigorous testing of plate reader with HTRF technology to ensure optimal readout. HTRF assays are also compatible with multimode readers from other providers as well.

Learn more with our eBook:



Choosing the Right Plate Reader

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For more information visit [www.perkinelmer.com/protein-protein-interaction](http://www.perkinelmer.com/protein-protein-interaction)

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