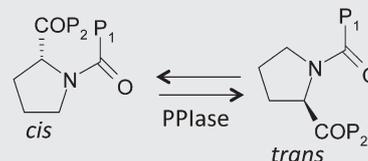
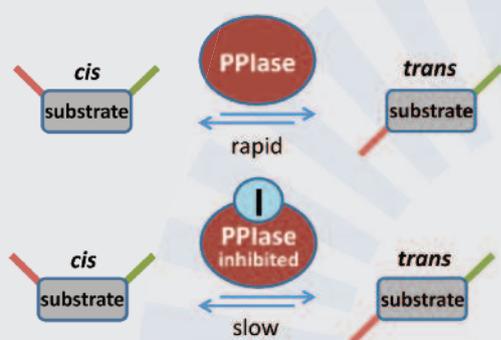


Peptidyl-Prolyl *cis-trans* Isomerases (PPIases) catalyse the *cis-trans* isomerisation of the X-Pro peptide bond in polypeptide chains.

Enzyme family includes Cyclophilins - FK506-binding proteins (FKBP) – Parvulins (incl. Pin1). Inhibitors have important therapeutic potential in the areas of [infection](#), [immunology](#), [cancer](#), [inflammation](#) and [tissue degeneration](#).

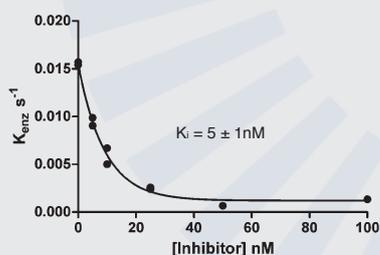


### Functional Isomerase Assay

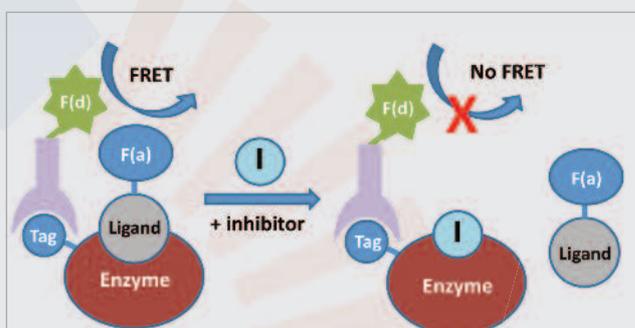


$$\text{Enzyme Catalysed Rate} = K_{\text{obs}(+\text{enzyme})} - K_{\text{obs}(-\text{enzyme})}^1$$

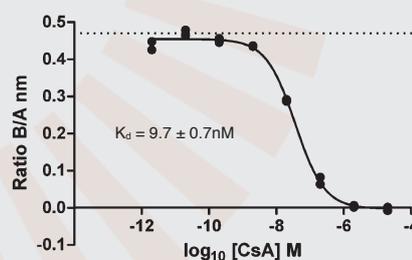
#### CsA in Cyclophilin A Functional Assay



### Competitive Binding Assay



#### CsA in Cyclophilin A Competitive Binding Assay



### Assays Available

Functional	Competitive
Cyclophilin A	Cyclophilin A
Cyclophilin B	Cyclophilin B
Cyclophilin C	Cyclophilin C
Cyclophilin D	Cyclophilin D
Pin 1	Pin 1*
FKBP12	-
FKBP38*	-
FKBP51	-
FKBP52	-
Counter Assay	Calcineurin <sup>#</sup>

\*in development

### Comparison of Cyclophilin Assay Types

Criteria	Functional Assay	Competitive Assay
Assay type	functional	competitive binding
Format	single cuvette	96 well
Detection	330nm	FRET (ratio of two wavelengths)
Deliverable	K <sub>i</sub> value	K <sub>d</sub> value
Lower sensitivity	K <sub>i</sub> > 1nM	K <sub>d</sub> > 5nM

<sup>#</sup>Calcineurin inhibition assay also available to measure the immunosuppression effects of PPIase/inhibitor complexes that bind calcineurin (i.e. Cyclophilin A/CsA or FKBP12/FK506).

1. Jankowski et al. Anal. Biochem. 252, 299-307 (1997).

If your particular isomerase of interest is not listed, please contact us to discuss further: [contact@selcia.com](mailto:contact@selcia.com)

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[contact@selcia.com](mailto:contact@selcia.com)  
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