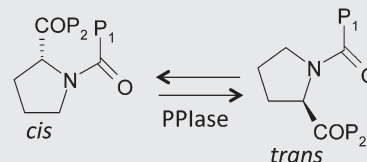
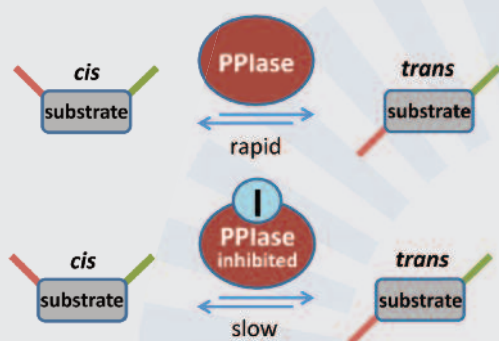


Peptidyl-Prolyl *cis-trans* Isomerases (PPIases) catalyse the *cis-trans* isomerisation of the X-Pro peptide bond in polypeptide chains.

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](#).

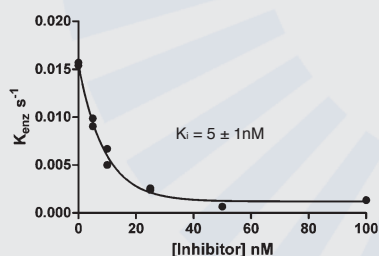


Functional Isomerase Assay

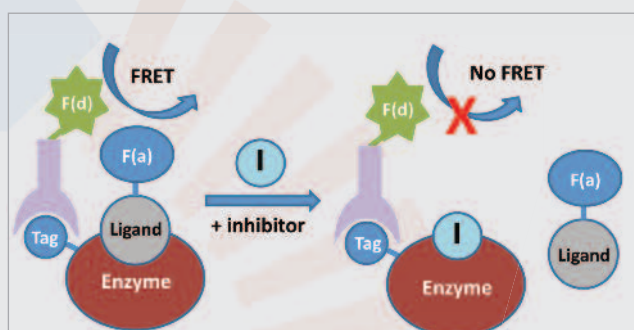


$$\text{Enzyme Catalysed Rate} = K_{\text{obs}(+\text{enzyme})} - K_{\text{obs}(-\text{enzyme})}^1$$

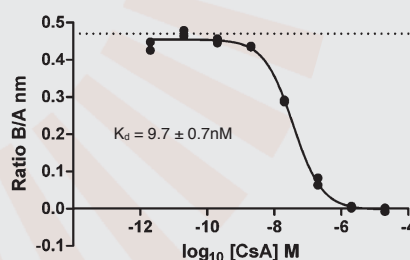
CsA in Cyclophilin A Functional Assay



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#

*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	Ki value	Kd value
Lower sensitivity	Ki > 1nM	Kd > 5nM

#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

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