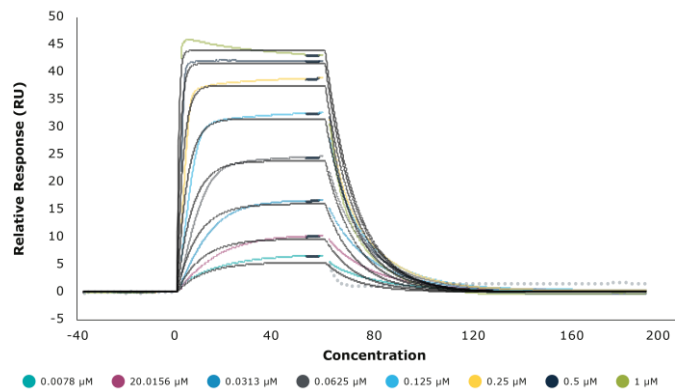


# Optimer<sup>®</sup> binder for imatinib



Validated Optimer<sup>®</sup> binder for the detection & quantification of imatinib

Target	Imatinib
Selectivity	Cross-reacts with the active metabolite, N-desmethyl imatinib  Does not interact with plasma
Applications	Biolayer interferometry ELISA-like assays
Optimer <sup>®</sup> size	52 nucleotides



Imatinib Optimer<sup>®</sup> binders show concentration-dependent target binding by SPR.

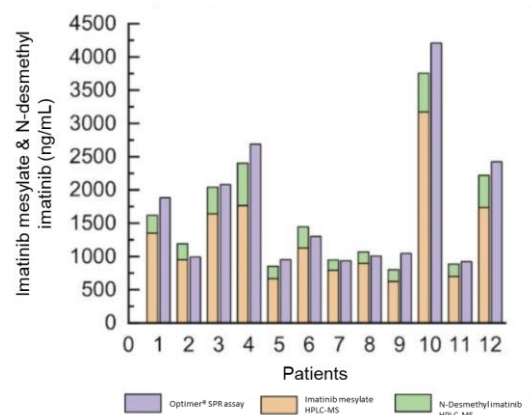
## Target information

Imatinib is a medication used to treat Philadelphia positive-chromosome chronic myeloid leukemia (CML), acute lymphoblastic leukemia (ALL) and gastrointestinal stromal tumor (GIST). Imatinib is a tyrosine kinase inhibitor, that acts to prevent phosphorylation and downstream proliferative pathways, which are abnormally activated in malignant cells. Within the body imatinib is metabolized by cytochromes P450 3A4 and P450 3A5 primarily to the active species, N-desmethyl imatinib.

## Imatinib Optimer<sup>®</sup> is functional in biosensor and ELISA-like assays

<b>Quantifiable range (ng/mL)</b>	<b>ULOQ</b>	6000
	<b>LLOQ</b>	400
	<b>LOD</b>	79.5
<b>Inter-assay</b>	<b>Precision (%)</b>	2.0 – 7.9
	<b>Accuracy (%)</b>	99.6 – 100.4
<b>Intra-assay</b>	<b>Precision (%)</b>	1.7 – 8.4
	<b>Accuracy (%)</b>	99.9 – 101.1

Validation parameters for SPR analysis of imatinib detection in plasma meet FDA requirements



Optimer<sup>®</sup> biosensor performance showed excellent correlation with gold standard LC-MS across 72 clinical patient samples.

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## Optimer® binders

Optimer® binders are small oligonucleotide ligands (~15kDa) that bind to target molecules with comparable specificity and affinity to that of antibodies. These synthetic affinity ligands are designed to mimic the molecular recognition characteristics of monoclonal antibodies in different applications.

Intended for research use only. Not to be used for any other purpose, which includes but is not limited to, unauthorized commercial uses, *in vitro* diagnostic uses, *ex vivo* or *in vivo* therapeutic uses or any type of consumption or application to humans or animals.

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## The Optimer® advantage

Optimer® binders are oligonucleotide ligands that offer several key benefits over traditional protein-based affinity reagents.



Batch consistent  
manufacture



Rapid discovery  
& development



Animal-free discovery,  
development & manufacture



Highly stable with  
long shelf life



Security of supply  
from defined  
Optimer sequence



Small size for improved  
signal:noise & tissue  
penetration

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## Flexible functionalisation for assay compatibility

Optimer® binders can be modified with a wide variety of functional groups for simple platform integration. Please enquire for more information.

For custom modifications specific for your research, or more details about how Optimer® binders can be utilized in your research, please get in touch via email at [info@aptamergroup.com](mailto:info@aptamergroup.com).

