

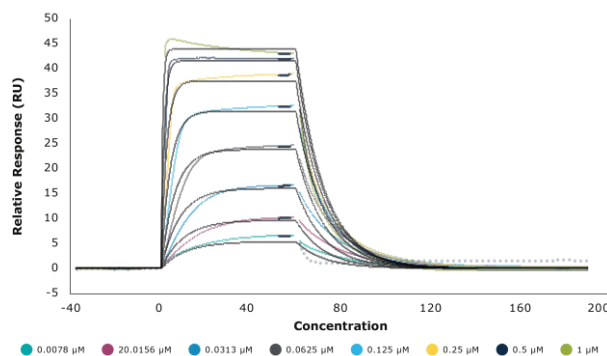
Optimer[®] binder for irinotecan



aptamer
GROUP

Validated Optimer[®] binder for the detection & quantification of irinotecan

Target	Irinotecan
Selectivity	Cross-reacts with the active metabolite, SN-38 Does not interact with plasma
Applications	Tested in biolayer interferometry & ELISA-like assays
Optimer [®] size	100 nucleotides



Irinotecan Optimer[®] binders show dose-dependent binding by SPR.

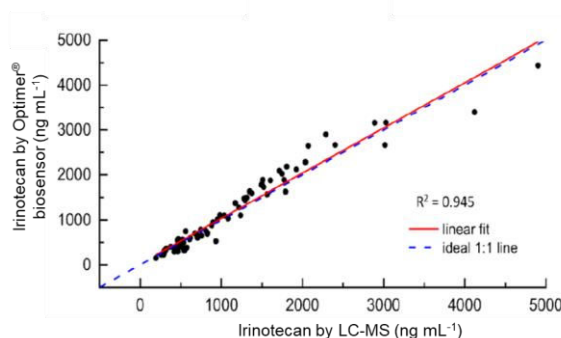
Target information

Irinotecan is a medication used to treat metastatic colon cancer, rectal cancer and small cell lung cancer. Irinotecan is activated by hydrolysis to SN-38 (7-ethyl-10-hydroxycamptothecin), an inhibitor of topoisomerase I. The inhibition of topoisomerase I by the active metabolite SN-38 eventually leads to inhibition of both DNA replication and transcription.

Irinotecan Optimer[®] is functional in biosensor and ELISA-like assays

Quantifiable range (ng/mL)	ULOQ	7500
	LLOQ	100
	LOD	55
Inter-assay	Precision (%)	4.6-9.5
	Accuracy (%)	99.7 - 102.7
Intra-assay	Precision (%)	0.4 - 3.5
	Accuracy (%)	97.8 - 100.2

Biosensor assay parameters for irinotecan detection in plasma meet FDA requirements for ligand binding assays.



Optimer[®] biosensor performance showed excellent correlation with gold standard LC-MS across 72 clinical patient samples.

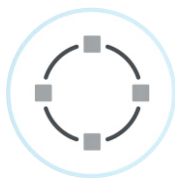
Optimer® binders

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.

The Optimer® advantage

Optimer® binders are oligonucleotide affinity 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

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.

