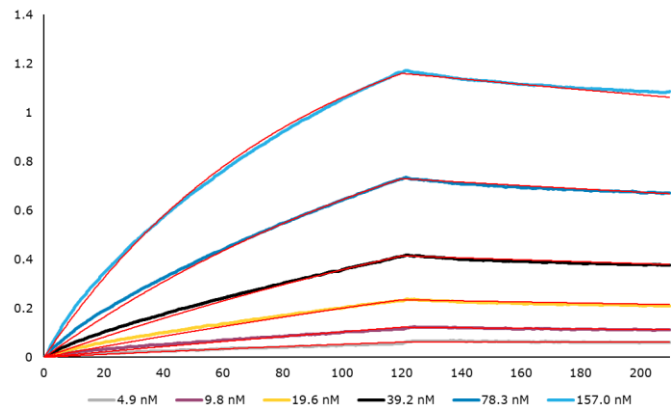


Optimer[®] binder for HIV-1 gp120 envelope glycoprotein



High affinity binders for the detection & analysis of HIV-1

Species reactivity	Virus
Target	Recombinant HIV-1 gp120 protein
Target affinity	14 nM
Selectivity	Does not cross-react with human plasma
Applications	Tested in biolayer interferometry
Optimer [®] size	37 nucleotides



HIV-1 gp120 Optimer[®] shows high target affinity for the viral protein by biolayer interferometry.

Target information

Gp120 is a glycoprotein that is part of the outer layer of the HIV-1 virus. The protein presents as a viral membrane spike consisting of three linked gp120 molecules anchored to the membrane by gp41. The surface gp120 subunit is essential for viral infection of host helper T cells, via sequential interaction with CD4 receptor and a co-receptor CCR5 or CXCR4. This induces a conformational change that allows the transmembrane subunit gp41 to mediate fusion between viral and target cell membranes. It has a postulated role in facilitating viral persistence and continuing HIV infection by influencing the T cell immune response to the virus.

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.

