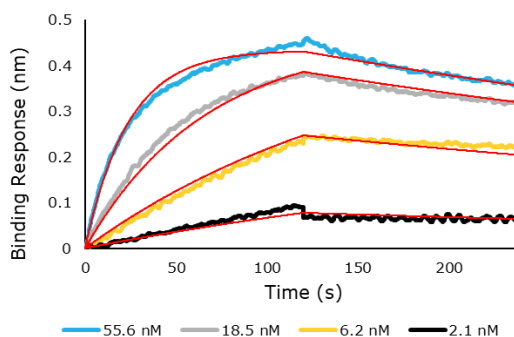


Optimer[®] binder for human CD4



Validated Optimer binders for the detection and visualisation of human CD4

Species reactivity	Human
Target	CD4
Target affinity	6.43 nM
Applications	Biolayer interferometry, flow cytometry, IHC
Optimer [®] size	53 nucleotides

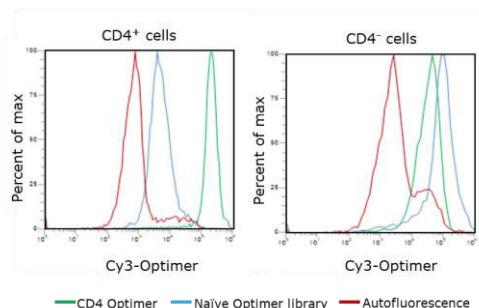


CD4 Optimer[®] shows high target affinity for the recombinant human protein by biolayer interferometry.

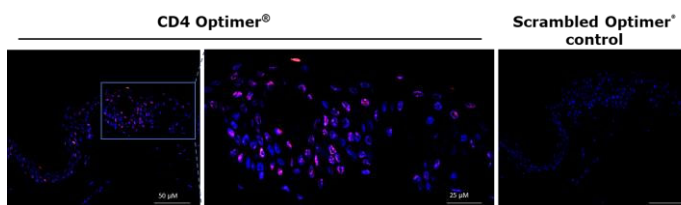
Target information

CD4 is a transmembrane glycoprotein that is expressed predominantly on thymocytes and a subset of mature T lymphocytes. It is a standard phenotypic marker for the identification of T helper cell populations. CD4⁺ T helper cells, differentiate into multiple subsets of CD4⁺ cells including Th1, Th2, Th9, Th17, Th22, Tfh, and Treg cells. In humans, CD4 is also expressed on macrophages, neutrophils, monocytes, NK cells, and neurons and glial cells in the brain. CD4 binds directly to MHC class II molecules on antigen presenting cells. This interaction contributes to the formation of the immunological synapse which is focused around the TCR-MHC class II-antigenic peptide interaction. CD4 also functions as a chemotactic receptor for IL-16 and, in humans, as a coreceptor for the gp120 surface glycoprotein of HIV-1.

CD4 Optimer[®] validated in flow cytometry and IHC



CD4 Optimer[®] binders detect CD4⁺ cells with no interaction with CD4⁻ cells by flow cytometry.



Optimer[®] binders show specific, discrete localisation in FFPE section of human skin

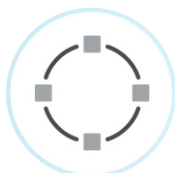
Optimer® binders

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 synthetic oligonucleotide affinity ligands that offer several key benefits over traditional protein-based affinity reagents.



Batch consistent
manufacture



High affinity
& selectivity



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.

