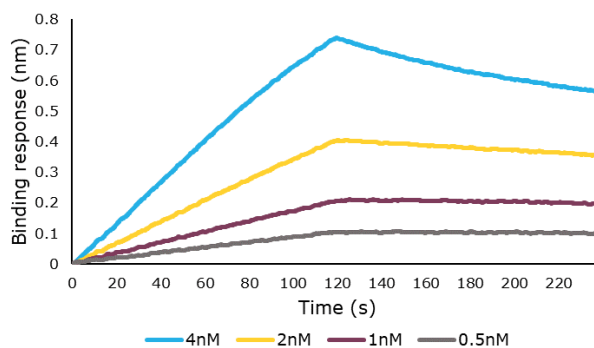


Optimer® binder for Human Hemopexin

Validated Optimer® binders for the detection and affinity purification of human hemopexin from complex matrices

Species reactivity	Human
Target	Hemopexin
Target affinity	5.57 nM
Cross-reactivity	Does not interact human plasma proteins, including Albumen
Applications	Biolayer interferometry Affinity chromatography
Optimer® size	80 nucleotides

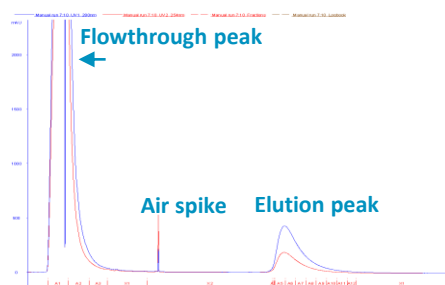


Hemopexin Optimer® shows high target affinity for the human plasma protein by biolayer interferometry.

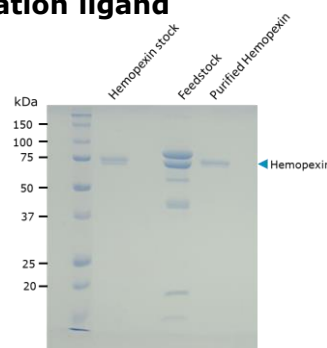
Target information

Hemopexin is a human plasma protein with the highest binding affinity for heme. It functions to bind and transport free heme to the liver, where it is internalized and degraded, thus preventing heme-mediated oxidative stress and heme-bound iron loss. Additionally, hemopexin is an exogenous antioxidant that is capable of binding heme extracellularly to inhibit the influx of free heme into cells, consequently it confers cytoprotection against intracellular toxicity and tissue damage. Hemopexin holds potential therapeutic effects in the treatment of diseases with heme-overload such as heme-driven macrophage-mediated inflammation in sickle cell disease and heme-driven cardiovascular disease.

Hemopexin Optimer® functions as an affinity purification ligand



Hemopexin purification from plasma was demonstrated on small-scale Optimer® columns using an AKTA Explorer FPLC.



Hemopexin Optimer® was immobilised on commercially available chromatography resin and used to purify hemopexin from a plasma sample.

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



High affinity
& selectivity



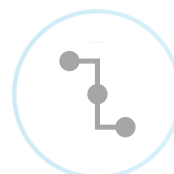
Animal-free discovery,
development & manufacture



Highly stable across
pH and solvents



Security of supply
from defined
Optimer® sequence



Diverse chemistries for
resin compatibility

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.

