



DNA Aptamer Pair against *Chikungunya* Virus Envelope 2 Protein

SKU# APT-062: DNA Aptamer Pair against *Chikungunya* Virus Envelope 2 Protein

Background

Chikungunya virus (CHIKV) is a mosquito-borne virus that belongs to the *Togaviridae* family and *Alphavirus* genus. CHIKV are spherical, small, enveloped viruses with a genome of positive sense single-strand RNA. The genome is approximately 12 kb, which encodes four non-structural (nsP1, nsP2, nsP3 and nsP4) and 5 structural proteins (Capsid, Envelope 3, Envelope 2, 6K and Envelope 1). From these proteins, the envelope glycoprotein, or E protein, has an important role been associated with receptor binding, hemagglutination of erythrocytes, production of neutralizing antibodies and immune response.

Chikungunya fever, caused by CHIKV, exhibits clinical features that mimic that of other arbovirus infections such as dengue. Chikungunya virus Envelope 2 (E2) protein, an antigenic epitope of CHIK, has been identified as an ideal marker for diagnostics.

Fusion BioLabs provides validated DNA aptamers against Chikungunya virus Envelope 2. They could be used as direct ELASA alone or paired to capture DNA aptamer and detection DNA aptamer for Sandwich ELASA.

Aptamer type: DNA aptamer

Aptamer length & Affinity KD

	Aptamer Length	Affinity KD
Capture Aptamer	60 bp	177.5 nM
Detection Aptamer	40 bp	30.01 nM

Kit contents

The following components are included in the Kit.

	Component	Quantity
APT-062-10	Single strand DNA, lyophilized powder	10 nmol
APT-062-30	Single strand DNA, lyophilized powder	30 nmol

- Store at -20°; reagents are guaranteed stable for 12 months when properly stored.