The KISSING BOX™ provides a fast, simple, and cost-effective blood pathogen testing method for point-of-care applications. KISSING BOX™ Blood Tests use synthetic biology technology to engineer mosquito immune system to respond to viruses and bacteria through Toll signaling. Blood testing with KISSING BOX™ is generating quick green fluorescence signal and giving easy-to-read results. Blood drawing and lab equipment are not required, and the living “syringe” of genetically engineered mosquito are 100% biodegradable. The KISSING BOX™ consists of 3 products with different blood pathogen testing options to suit every point-of-care and limited-resource need.
Comparison of Blood Virus Test

<table>
<thead>
<tr>
<th>Method</th>
<th>Saliva Test (Rapid test)</th>
<th>Blood Test</th>
<th>Kissing Box™</th>
</tr>
</thead>
<tbody>
<tr>
<td>Place</td>
<td>Point-of-care</td>
<td>Lab</td>
<td>Point-of-care</td>
</tr>
<tr>
<td>Time</td>
<td>20 minutes</td>
<td>2 - 3 days</td>
<td>6 - 8 hours</td>
</tr>
<tr>
<td>Accuracy</td>
<td>Inaccurate (False-positive)</td>
<td>Accurate</td>
<td>Accurate</td>
</tr>
<tr>
<td>Windows Period</td>
<td>3 month</td>
<td>2 weeks</td>
<td>2 weeks</td>
</tr>
<tr>
<td>Detection</td>
<td>Antibody</td>
<td>Antigen Nucleic Acid</td>
<td>Antigen</td>
</tr>
</tbody>
</table>

Ordering Information

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Product</th>
<th>Detection</th>
<th>Signal</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>MD2018-01</td>
<td>Universal Pathogen Blood Test</td>
<td>Mosquito-borne pathogens</td>
<td>GFP</td>
<td>$</td>
</tr>
<tr>
<td>MD2018-02</td>
<td>HIV Viral Blood Test</td>
<td>Human HIV gp120 protein</td>
<td>GFP</td>
<td>$$</td>
</tr>
<tr>
<td>MD2018-03</td>
<td>Versatile Viruses Blood Test</td>
<td>Specifically for any viruses</td>
<td>GFP</td>
<td>$$$</td>
</tr>
</tbody>
</table>

Product Design

![3D Diagram](image)
1. Check if cage is intact
2. Check mosquito vitals, do not use if living mosquitoes are fewer than 3
3. Remove cover tape from the bandage
4. Stick the cage onto forearm for 5-10 minutes
5. Leave cage alone in a cool condition for 8 hours
6. Put cage into scanner box and turn on blue LED
7. Check results
1. **Mosquito-borne pathogens**

**KISSING BOX™**

Cat. No. MD2018-1

**Universal Pathogen Blood Test**

- Sensor: Mosquito Toll
- Signaling: Mosquito Toll-AMP signaling
- Reporter: $P_{\text{gam1}}$-GFP *green fluorescence*
- Application: Human & livestock

2. **Human HIV virus**

**KISSING BOX™**

Cat. No. MD2018-2

**HIV Viral Blood Test**

- Sensor: Human CD4 / Drosophila Toll chimera
- Signaling: Mosquito Toll-AMP signaling
- Reporter: $P_{\text{drosomycin}}$-GFP *green fluorescence*
- Application: Human

3. **Blood viruses**

**KISSING BOX™**

Cat. No. MD2018-3

**Versatile Viruses Blood Test**

*Come to You in Near Future*

- Sensor: Viral glycoprotein display by Toll
- Signaling: Mosquito Toll-AMP signaling
- Reporter: $P_{\text{drosomycin}}$-GFP *green fluorescence*
- Application: Human & livestock