**BioCheck™ Powder Screening Test Kit**

20/20 GeneSystems’ **BioCheck™** Kit helps first responders quickly determine—by looking for a color change—whether a suspicious powder may contain a bioterror agent. This is only a first step in determining whether a pathogen or toxin may be present.

**Principle** The product works primarily by using **PurpleHaze™ Technology** to identify protein, found in all living material. All biowarfare agents—including Anthrax and Ricin—contain protein. On the other hand, many harmless substances frequently mistaken to be potential bioterror agents, such as powdered sugar, drywall dust, cornstarch, and many cosmetics—do not. The **BioCheck™** Powder Screening Test Kit also includes a test to determine pH. A positive with this test further rules out any materials not containing biohazardous materials; these don’t normally survive acidic and basic environments.

**Method** The protocol is fast and easy to perform. A sample is first collected on two chemically treated swabs provided with the kit then each swab is immersed in a solution that produces a color change within five minutes only if the agent being tested for is present. IMPORTANT: use only the swabs provided in the kit. The kit also contains a protein positive control that is used to confirm that a negative test for protein is not due to a failure of the protein test.

**Examples of Results Obtained with the BioCheck Kit**

<table>
<thead>
<tr>
<th>Sample</th>
<th>Protein Test</th>
<th>pH Test</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential pathogen or toxin or harmless substance containing protein (e.g., anthrax, ricin, yeast, cornmeal)</td>
<td><strong>PURPLE</strong> (+)</td>
<td><strong>PALE YELLOW</strong></td>
<td>Further testing required</td>
</tr>
<tr>
<td>Unlikely biothreat (e.g., sugar, cornstarch, dry wall dust)</td>
<td>NO CHANGE (-)</td>
<td><strong>PALE YELLOW</strong> OR <strong>RED</strong> or <strong>BLUE</strong></td>
<td>BIOLOGICAL THREAT UNLIKELY</td>
</tr>
</tbody>
</table>

**PLEASE NOTE THE FOLLOWING BEFORE USE:**
- For use by public safety professionals ONLY. Not for consumer use.
- This product is for FIELD USE ONLY and is not intended for diagnostic or laboratory use.
- Confirmatory testing by bacterial culture, DNA testing and/or antibody tests is required before a definitive assessment can be made as to whether a particular pathogen or toxin is present.
- Some safe substances that contain protein—such as baker’s yeast—will test positive with the **BioCheck** Kit. Thus, confirmatory testing is always required if a positive result is seen.
- This product is designed to identify the presence of visible quantities of toxins or pathogens. It is not intended for environmental sampling or monitoring.
- To be detected, the biohazardous material must be present in amounts of equivalent to 100 µg or more (approximately half the size of a pencil eraser).