Entamoeba histolytica is an intestinal amoeba which causes infection after ingestion of cysts. Approximately 12% of the world population is infected with E. histolytica.1 Ninety percent of infected individuals experience asymptomatic infections and fatalities are generally associated with extraintestinal complications (viz., intestinal perforation, liver abscesses, or peritonitis). Amoebic liver abscess is the most common complication and is present in 5% of cases. The amoebic liver abscess, caused by E. histolytica, is characterized by the presence of inflammatory debris, microabscesses, abscess cavities, and fibrosis. Asymptomatic carriage of amoeba is common in areas where the infection is prevalent, and the percentage of population infected varies from one area to another. Infection can occur after ingestion of cysts. Approximately 12% of the world population is infected with E. histolytica, and if untreated, amoebiasis can lead to serious medical complications such as liver abscesses, peritonitis, and intestinal obstruction. The infection is usually diagnosed through the detection of trophozoites or cysts in the stools of infected individuals. The infection is spread through contaminated food or water. The organism is highly variable in its morphology and can be detected through microscopic examination of stool samples. The infection can be diagnosed through the detection of tissue-dwelling forms of the amoeba in tissue samples or through the detection of specific antibodies in blood samples. The infection can be treated with medications such as metronidazole and paromomycin. The infection is difficult to treat and can lead to serious complications such as liver abscesses and intestinal obstruction.
**ANALYTICAL SENSITIVITY**

ProSpecT Entamoeba histolytica Microplate Assay detects approximately 40 nanograms/ml of EHSIA.

**REPRODUCIBILITY**

The inter-assay or run-to-run coefficient of variation (CV) of the ProSpecT Entamoeba histolytica Microplate Assay was evaluated by selecting four positive specimens with varying optical density readings. Each sample was tested in 8 wells per day for five consecutive days. The mean inter-assay CV was 4.8%.

<table>
<thead>
<tr>
<th>Sample</th>
<th>Mean O.D.</th>
<th>Standard Deviation</th>
<th>%CV</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.950</td>
<td>0.0210</td>
<td>2.20</td>
</tr>
<tr>
<td>2</td>
<td>0.620</td>
<td>0.0143</td>
<td>2.30</td>
</tr>
<tr>
<td>3</td>
<td>0.450</td>
<td>0.0355</td>
<td>7.90</td>
</tr>
<tr>
<td>4</td>
<td>0.260</td>
<td>0.0279</td>
<td>9.00</td>
</tr>
</tbody>
</table>

The intra-assay or within-run CV was evaluated by testing 24 wells with each of 4 positive specimens. The mean intra-assay CV was 3.4%.

<table>
<thead>
<tr>
<th>Sample</th>
<th>Mean O.D.</th>
<th>Standard Deviation</th>
<th>%CV</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td>0.0242</td>
<td>2.23</td>
</tr>
<tr>
<td>2</td>
<td>0.685</td>
<td>0.0242</td>
<td>3.54</td>
</tr>
<tr>
<td>3</td>
<td>0.481</td>
<td>0.0207</td>
<td>4.31</td>
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<tr>
<td>4</td>
<td>0.289</td>
<td>0.0100</td>
<td>3.50</td>
</tr>
</tbody>
</table>

**CROSS-REACTIVITY**

ProSpecT Entamoeba histolytica Microplate Assay has been tested with stool specimens found to be O&P positive for a number of faecal parasites. No cross reactivity was observed with any of the infectious agents listed below.

- Ascaris lumbricoides (4)
- Hookworm (1)
- Blastocystis hominis (5)
- Hymenolepis nana (1)
- Chilomastix mesnili (1)
- Iodamoeba butschlii (1)
- Cryptosporidium parvum (6)
- Isospora spp. (2)
- Dientamoeba fragilis (5)
- Strongyloides stercoralis (2)
- Entamoeba coli (4)
- Endolimax nana (4)
- Taenia spp. (1)
- Trichuris trichiura (4)
- Entamoeba hartmanni (2)
- Giardia lamblia (5)

Numbers in parentheses indicate the numbers of specimens tested.

**BIBLIOGRAPHY**


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