Note: Don't use if the initial absorbance of the reagent is greater than 0.350 when measured at 500 nm. The intensity of the color formed is directly proportional to the triglycerides concentration in the sample.

**Stability and preparation of working reagent**

**Reagent R:** liquid mono reagent, ready to use.

The reagent is stable up to expiry date given on the label when stored at +2° to +8°C. Stability after opening the bottle: 2 months at +2° to +8°C.

**Note:** Don't use if the initial absorbance of the reagent is greater than 0.350 when measured at 550 nm against water.

**Specimen collection and handling**

1. Non-hemolyzed serum, heparinized or EDTA plasma is recommended.
2. Avoid anticoagulants containing fluoride or oxalate.
3. The serum should be collected following a 12 hour fasting, and separated from the clot as soon as possible.
4. Serum or plasma may be stored for 1 week at 2 - 8°C and for 3 months at -20°C.
5. Frozen samples should be thawed at room temperature and mixed completely before analysis. Thawed samples should not be refrozen.

**Calibrator / Standard**

**MediCal U Cat. No. 15011**

Triglycerides STD. Cat. No. 16191

**Quality control**

Meditrol N Cat. No. 15171

Meditrol P Cat. No. 15181

**Procedure**

<table>
<thead>
<tr>
<th>Wavelength</th>
<th>Spectrophotometer</th>
<th>Cuvette</th>
<th>Temperature</th>
<th>Measurement</th>
<th>Reaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>505 nm</td>
<td>1 cm light path</td>
<td></td>
<td>37°C - 20 - 25°C</td>
<td>against reagent blank</td>
<td>end point</td>
</tr>
</tbody>
</table>

**Calculation**

\[
\text{Conc. Triglycerides (mg/dl)} = \frac{A_{\text{Sample}}}{A_{\text{Cal./STD.}}} \times X \text{ Conc. Cal./STD. (mg/dl)}
\]

\[
X = \frac{87.5}{0.0114} \text{ mg/dl}
\]

**Linearity**

Up to 1000 mg/dl (11.43 mmol/L). If the result exceeds 1000 mg/dl, repeat the test using diluted serum (1+4) with sodium chloride solution (0.9%) and multiply the result by 5.

**Interferences**

1. A number of drugs and substances affect the determination of triglycerides. Young, et al, have published a comprehensive list of these substances.
2. The method is not influenced by bilirubin levels up to 12 mg/dl (< 5%).
3. Detergents can interfere with the action of lipase. Care should be taken to avoid contamination of laboratory equipment with detergents.
4. Ascorbic acid: No significant interference up to 100 mg/dl.
5. Hemolysis interferes with the test.
Triglycerides Enzymatic colorimetric method

Precaution
The reagent contains sodium azide (0.1 %) as a preservative. Don’t ingest. Avoid skin and eye contact. Sodium azide may react with copper or lead plumbing to form explosive metal azides. Upon disposal flush with large amounts of water.

Reference range

| Adults | < 200 | mg/dl |

References