**Technical Datasheet**

**Analysis Name:** Detection of Milk Traces by ELISA  
**Method Number:** LI-00.586  
**Scope of Application:** Infant formula, infant cereal, tannin-containing products (i.e. coffee), beverages, finished food products, rinse water, environmental swabs  
**Description:** Samples are homogenized and milk proteins are extracted at 60 °C with buffered salt solution (PBS) that contains an extraction additive. After centrifugation, milk proteins are detected by a sandwich ELISA, using antibodies specific to milk proteins. Sample extract, reference sample extract and standard solutions are added to the antibody-coated wells. The milk proteins present in the sample will bind to the immobilized capture antibodies during incubation. Unbound material is washed away. An enzyme-linked detector antibody is added, which attaches to the bound milk protein residue during incubation. After washing, the substrate is added, developing a blue coloration in the presence of the enzyme-linked detector antibody. Addition of stop solution changes the color from blue to light pink when the milk antigen concentration is low, to purple/blue when there are detectable antigen amounts and remains dark blue if the antigen concentration falls outside the calibration curve. The color intensity is measured using a spectrophotometer at 650 nm. Color development is proportional to the amount of milk proteins in the sample.  
**Sample Weight Required:** 50 g  
**Analytical Platform:** Microplate Reader  
**Special information:** Original container needed  

Method reports a quantitative result for testing of food products as described in method scope and reports a qualitative result for environmental swabs as “detected” or “not detected” based on a LoD of 100 ng/mL.

<table>
<thead>
<tr>
<th>Analyte Reported</th>
<th>Alias</th>
<th>Unit of Measure</th>
<th>Limit of Quantification</th>
<th>Reproducibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skim Milk Powder (MSK)</td>
<td>Milk</td>
<td>mg/kg</td>
<td>2.5</td>
<td>20%</td>
</tr>
<tr>
<td>Skim Milk Powder (MSK)</td>
<td>Milk Swabs</td>
<td>ng/mL</td>
<td>100</td>
<td>N/A</td>
</tr>
</tbody>
</table>

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