**Introduction**

IgG levels of all foals should be measured after first suckling (between 12-24 hours old).

Foals are born with no immunoglobulins (IgG) and must receive adequate antibodies from the mare's colostrum (passive transfer of IgG). Up to 20% of newborn foals experience a partial or total failure of passive transfer of IgG.

These animals are at high risk of infection and serious illness or death. Failure of passive transfer can occur as a result of premature lactation, deficient suckling, malabsorption or low IgG levels in the mare's colostrum.

An IgG test will identify if a failure of passive transfer has occurred by measuring the levels of IgG in the blood. An adequate level of IgG is 800 mg/dl of IgG or greater. Levels less than 400 mg/dl indicate inadequate passive transfer. IgG should be supplemented in foals with less than 400 mg/dl.

A rapid identification of low IgG levels is very important for the early initiation of treatment of immunodeficient foals.

**Reference**

McGuire TC, Crawford TB, Hallowel AL, Macomber LE. Failure of colostral immunoglobulin transfer as an explanation for most infections and deaths in neonatal foals JAVMA 170, 1302 (1977).

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**Storage**

The entire kit and components should be stored at room temperature in order to have the labelled shelf life.

**Sample Preparation**

Collect ~ 1-2 ml of whole blood using a syringe or a needle and collection tube containing EDTA or heparin. Sample can be stored in refrigerator for up to 7 days.

**Kit Components**

- 5 or 10 pouches containing test device & desiccant
- 5 or 10 sample diluent bottles
- 1 Buffer dropper bottle B
- 10 or 20 tips
- Needed but sold separately 10 uL pipetter

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**Immuno-Chek G**

Foal IgG Test Kit

Quickly identify immunodeficient foals

Immuno-Chek G is an easy to use flow test for semi-quantitative detection of immunoglobulin G (IgG) in a drop of equine whole blood.

BioMetallics, Inc.

Tel 1-800-999-1961 or 1-609-275-0133
Fax 1-609-275-9485

www.targetvet.com

Intended for veterinary use only. Not for human use. The manufacturer warrants the kit for its intended use. BioMetallics’ liability is limited to the value of the kit.
IMMUNO-CHEK FOAL TEST PROCEDURE FOR WHOLE BLOOD SAMPLES

TEST PREPARATION

Label one Sample Dilution bottle with Foal ID. Collect 1-2 ml anticoagulated whole blood sample (heparin or EDTA). Mix whole blood sample by inverting.

1 Slowly transfer 10 uL whole blood sample (from stopper as shown) using a Pipetter and a tip into an uncapped Sample Dilution bottle. Move pipette plunger up and down several times to mix. Discard tip.

2 Recap the Sample Dilution bottle. Mix sample by inverting 4x. Allow diluted sample to stand while preparing cassette.

3 Remove the cassette from the foil pouch. Place cassette on a level surface.

4 Using a new tip, transfer 10 uL of diluted sample from Sample Dilution bottle into the cassette.

5 Add 3 drops from Dropper Bottle B to the cassette.

6 Read results in 10 min. Compare with interpretation chart.

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Immuno-Chek IgG Results Interpretation

Test line intensity result corresponds to IgG level in Equine Blood (mg/dl).

<table>
<thead>
<tr>
<th>Level</th>
<th>Test line</th>
<th>Control line</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥800</td>
<td>T</td>
<td>C</td>
<td>Very good transfer. Test line is much darker than Control line.</td>
</tr>
<tr>
<td>400</td>
<td>T</td>
<td>C</td>
<td>Partial Failure - Monitor closely. Test and Control lines are both faint. Test line is slightly darker or similar intensity to control.</td>
</tr>
<tr>
<td>200</td>
<td>T</td>
<td>C</td>
<td>Total Failure - IgG supplement necessary. Test line is a faint line. Control line is darker than test line.</td>
</tr>
</tbody>
</table>

A Control line will always appear in the results window of every properly functioning cassette.