

## TruStrip™ Foal IgG Failure of Passive Transfer Test

*A one step test for the semi-quantitative detection of Foal IgG in Equine serum or plasma*

### Introduction

Antibodies are major components of the mammalian immune system. IgG is the main type of antibody found in blood and extracellular fluid. Antibodies protect the body from infection by binding to many kinds of pathogens such as viruses, bacteria, and fungi.

Newborn foals are born without IgG antibodies. Foals rely on absorbing the mare's colostrum in the first few hours of life for protection against pathogens. Absorption of antibodies is greatest during the first 8 hours of birth and stops by 24 hours of age. Failure of passive transfer (FPT) is estimated to occur in up to 20% of newborn foals. The optimal level considered adequate may vary by Vet but is generally thought to be above 8 mg/ml or 800 mg/dl. Levels between 4-8 mg/ml are considered partial failure while levels below 4 mg/ml are considered complete failure.

The TruStrip Foal IgG FPT test is a stall-side test which can rapidly determine the approximate IgG concentrations of Foal in serum or plasma. It is recommended that blood is collected at approximately 12 hours after birth and tested. If IgG levels are below 4 mg/ml, oral supplementation with colostrum or a commercial colostrum substitute should be performed.

**Intended for Veterinary use only. Not for Human use. The manufacturer warrants the kit for its intended use. Alpha Diagnostic International's liability is limited to the value of the kit**

### Principle of the test

The Foal IgG rapid test is a semi-quantitative competitive test. The test contains a nitrocellulose membrane which is pre-coated with anti-Foal IgG antibodies on the test line region of the strip. A separate pad contains Foal IgG conjugated to gold nanoparticles. As serum is applied to the strip, it migrates upwards by capillary action which causes the Gold nanoparticle labeled Foal IgG to be released. The Foal IgG conjugate, in the absence of Foal IgG in serum will bind to the immobilized anti-Foal IgG antibody on the membrane resulting in a red to pink colored line in the test line region. If Foal IgG is present in serum, inhibition will occur that prevents the binding to the anti-Foal IgG antibody immobilized on the membrane. As the concentration of Foal IgG in serum increases, the intensity of the test line region decreases. The assay is optimized to result in the disappearance of the test line at serum Foal IgG concentrations of approximately 8 mg/ml or higher.

### Precautions

- Do not use the test after the expiration date
- Do not re-use the test
- Wear protective clothing such as disposable gloves when specimens are being tested
- Handle all specimens as if they contain infectious agents. The cassette should be disposed according to federal, state, and local regulations
- Humidity and temperature can adversely affect results
- Use the test within 20 minutes of opening the foil pouch

### Storage and stability

The kit can be stored at room temperature or refrigerated (2-25°C/35-77°C). Do not freeze. The test cassette must remain in the sealed pouch until use. The kit is stable for a minimum of 18 months from the date of receipt.

### Kit contents

**Materials provided:** Test cassettes and transfer pipette

**Materials required but not provided:** Centrifuge and serum or plasma collection tubes

### Specimen collection and preparation

**Serum (S):** Collect whole blood by venipuncture into a red-top Vacutainer® tube. Allow the blood to clot by leaving it at room temperature for 15-30 minutes. Centrifuge the blood for 10 minutes at 1,000xg and collect the supernatant.

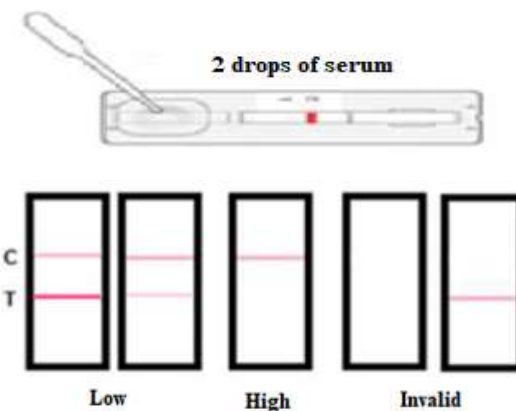
**Plasma (P):** Collect whole blood by venipuncture into a Blue top (Citrate) or Lavender (EDTA) Vacutainer® tube. Centrifuge the blood for 10 minutes at 1,000xg and collect the supernatant.

**Note:** Samples must not contain any red blood cells or any significant amount of hemolysis (red color), lipemia (white color), or visible particulates.

### Directions for use

**Allow the test cassette to come to room temperature (15-25°C/59-77°F) prior to testing.**

1. Remove the test cassette and transfer pipette from the foil pouch. Lay the device on a flat and dry surface.
2. Use the transfer pipette to transfer the sample by depressing the bulb of the pipette. Dispense 2 drops to the test cassette
3. Begin a timer for 10 minutes, allow 10 minutes for the test to complete. Do not interpret the results after 30 minutes. **Note:** The results will typically be visible within 1 minute but ~10 minutes will be needed for complete development of the test line region



### Interpretation of results

**Low IgG:** Two lines appear, one in the Control line region (C) and one in the Test line region (T). This indicates IgG is below 8 mg/ml.

**High IgG:** One pink line appears in the control region (C). No line appears in the test line region. This indicates IgG is above 8 mg/ml.

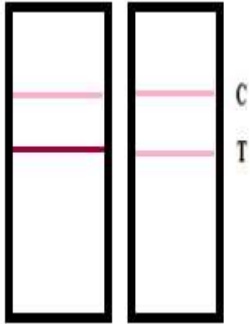
**Invalid:** A control line fails to appear. Insufficient specimen volume or incorrect procedural technique are the most likely cause. Check the expiration date. Repeat the test with a new cassette. If the problem persists, discontinue using the kit and contact the manufacturer.

### Quality Control

A pink line appearing in the control region (C) is the internal procedural control. External controls are not supplied. It is recommended that a positive and negative control (do not use water) be tested as good laboratory practice. If you require external controls, contact ADI to have controls formulated.

## Interpretation of results

The Foal IgG rapid test is a semi-quantitative competitive test. As the concentration of Foal IgG in the sample increases, the intensity of the test line decreases.



**0-2 mg/ml:** A test line appears that is roughly the same or much darker than the control line. This indicates total failure of passive transfer



**3-7 mg/ml:** An extremely faint line appears in the test line region that is less intense than the control line. This indicates partial failure of passive transfer.



**≥8 mg/ml:** No line appears in the test line region. This indicates adequate levels of IgG or no failure of passive transfer.

## Related items available from ADI

Catalog#	Description			
EP4-RDT-5 Ovulation Test strips (serum)	TruStrip™	Equine	Progesterone	
E1S-RDT-005 pregnancy test	TruStrip™	Equine	Estrone Sulfate	
7715-Fc Quantitative	Horse	IgG	ELISA Kit, 96 tests,	
BP4-RDT-5 Ovulation test (milk)	TruStrip™	Bovine	Progesterone	
CP4-RDT-5 Ovulation Test (serum)	TruStrip™	Canine	Progesterone	
1955 Quantitative	Progesterone	ELISA Kit, 96 tests,		



**ALPHA DIAGNOSTIC  
INTERNATIONAL**

Manufactured by:  
Alpha Diagnostics International  
6203 Woodlake Center Drive • San Antonio • Texas 78244 • USA.  
Phone (210) 561-9515 • Fax (210) 561-9544  
Toll Free (800) 786-5777

Email: [service@4adi.com](mailto:service@4adi.com)

Web Site: [www.4adi.com](http://www.4adi.com)

TruStrip™ is a registered trademark of Alpha Diagnostics International