

# Phytodetek<sup>®</sup> Standard Strips

Catalog number: STD 09347

US patent number: 6,927,062

## PRODUCT DESCRIPTION

The Phytodetek standard sticks are a quick and accurate way of producing a standardized plant hormone solution. The hormones are precisely dispensed and dried on a special porous medium so that they are stable and easily reconstituted when needed. Each plant hormone standard strip will produce the necessary standard concentration for use in the Phytodetek ELISA standard dilution curve.

## INTENDED USE

Phytodetek standard strips provide a fast, easy method to make the standard solutions necessary for select Agdia Phytodetek ELISA kits. These standards have been quality assured for use in quantifying plant hormones in ABA Phytodetek ELISA kits.

*Phytodetek<sup>®</sup> is a registered trademark of Agdia, Inc.*

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Lot number	Item	
_____	Hormone standard strip	3 strips
	<i>The above items should be stored at 2 - 8 °C.</i>	
_____	Instructions	1

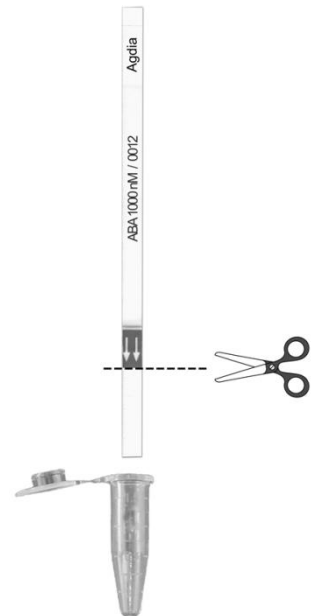
## MATERIAL REQUIRED, BUT NOT PROVIDED

- Conical microcentrifuge tube 1.5 mL (ACC 00340) or other conical micro tubes
- TBS buffer - formulation below or can be purchased from Agdia (ACC 00580)
- Tweezers or forceps
- Scissors

## USING THE STRIPS

Each standard strip can only be used once. Standard strips will make a standard solution that should be used within 6 hours then discarded. See the certificate of analysis for exact elution volume and concentration.

1. Remove the pouch of hormone standards from the refrigerator and let them warm to room temperature.
2. Remove a strip from the pouch and reseal the pouch with the desiccant. Hold the strip by the handle with the Agdia label; do not touch the filter paper at the bottom of the strip. Cut the filter paper at the arrows so that the filter paper falls into a microcentrifuge tube. Use forceps if necessary. The filter should fit inside the microcentrifuge tube so that the lid may close.
3. Dispense 1.00 mL of 1X TBS buffer. Close the tube and vortex the solution with the filter for 30 seconds.
4. Incubate the filter in the tube for 5 minutes, then vortex the solution for an additional 30 seconds. The solution approximately contains 700-1000 picomoles/mL (nM) (+)-ABA. See certificate of analysis for actual concentration. The kit recognizes only the (+)-ABA enantiomer.



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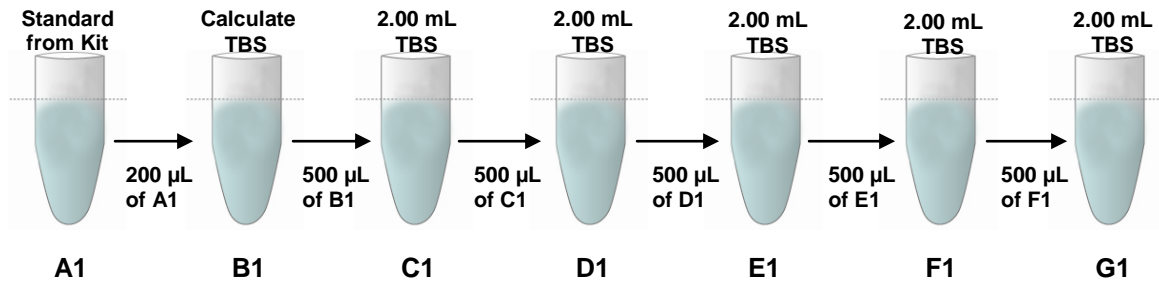
Following the chart below, prepare the other standards by diluting the standard solution further in 1X TBS buffer. New standards should be prepared each time the test is run.

**Stock Solution (SS) = 700 to 1000 picomoles/mL, NSB=Nonspecific Binding, B<sub>0</sub>=100 % Binding.**

Use the actual concentration of the eluted standard A1 from the certificate of analysis to calculate the dilution necessary to create standard B1 at exactly 100 picomoles/mL. For example, if A1 is 883 picomoles/mL, then dilute a 200 µL aliquot of A1 with 1.566 mL of TBS buffer to create standard B1 at 100 picomoles/mL.

**ABA Standard 09347** *Note: Mix each dilution well.*

Plate Position	ABA Solution	1X TBS Buffer	[ABA] picomoles/mL	Dilution
A1= NSB	Standard; One strip		700 – 1000	
B1	200 µL of A1	(Calculate)	100	(Calculate)
C1	500 µL of B1	+2.00 mL	20	1:5
D1	500 µL of C1	+2.00 mL	4	1:5
E1	500 µL of D1	+2.00 mL	0.8	1:5
F1	500 µL of E1	+2.00 mL	0.16	1:5
G1	500 µL of F1	+2.00 mL	0.032	1:5
H1=B <sub>0</sub>	0	100 µL	0	



Remove the desired number of testwells from the pouch and place them in the testwell holder. Reseal the pouch, making sure the desiccant is still present, and return it to the refrigerator.

## LIMITATIONS

**Expiration:** Strips should be used within 18 months of purchase.

**Storage:** Keep the standard strips tightly sealed in the pouch with the desiccant at all times. Store the pouch in the refrigerator (2 - 8 °C) until use.

**Safety:** Standards are non-hazardous.

**Strip Handling:** Hold strip by handle, never touch the filter pad. Touching the filter pad could lead to contamination.

**Strip Usage:** Each strip can only be used once, discard after use.

**ABA Standard Strips:** The ABA standard contains an enantiomeric mixture of (+/-) ABA in the concentration indicated in the Certificate of Analysis. The kit recognizes (+) ABA or half of the standard solution concentration indicated in the certificate.

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## **BUFFER FORMULATION:**

TBS Buffer            Dissolve in 800 mL distilled water:

Trizma base	0.53 g
Trizma hydrochloride	3.25 g
Sodium chloride	5.84 g
Magnesium chloride hexahydrate	0.20 g
Sodium azide, optional*	0.20 g

Adjust pH to 7.5. Adjust volume to 1000 mL. Store at 2 - 8 °C.

\*Add sodium azide if you will need long term stability for storing unused buffer.

*Trizma is a trademark of Sigma-Aldrich Biotechnology.*

## **TECHNICAL ASSISTANCE**

If you have any questions about using this kit, please contact Agdia, Inc.

Monday – Friday by phone (574-264-2014 or 800-622-4342) or by email ([info@agdia.com](mailto:info@agdia.com)).