Pioneer Research Anahita Company
No.157
Danesh street
Technology Park Pardis
Tehran/ Iran

DATA SHEET
Versions: 01
Revision date: 25/11/2023

1. Identification

Product name: NO Assay Kit

Reactions: 100 rxn

Cat. No.: PRA- NOB

2. Description

Within the vasculature, NO induces vasodilation, inhibits platelet aggregation, prevents neutrophil/platelet adhesion to endothelial cells, inhibits smooth muscle cell proliferation and migration, regulates programmed cell death (apoptosis) and maintains endothelial cell barrier function.

3. Kit Contents

Component	Cat. no
Solution A	PRA-TOPA
Solution B	PRA- ToPB
Standard	PRA- ToPS

4. Storage specifications

The Total protein Assay Kit components can be stored at room temperature.

5. Applications

Nitric oxide, classified as a reactive nitrogen species (RNS), is synthesized by the enzyme nitric oxide synthase (NOS). Its production has been identified as a key mediator in a spectrum of diseases, encompassing diabetes, renal ischemia, cancer, atherosclerosis, and conditions related to vascular and inflammatory responses.

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6. Assay Procedure

Preparation of Solutions

1. Combine Solution A with Solution B.
2. Prepare Solution D by adding 1 ml of distilled water to the vial and ensure thorough mixing.
3. The mixture of Solution A and B remains stable for up to 72 hours, while Solution D maintains stability for one hour after the addition of distilled water.

Preparation of Standard Solution

- Mix Solutions D and C in a 1:1 ratio. For instance, combine 100 µl of Solution D with 100 µl of Solution C for each test.

Protocol

1. Allow the kit components to equilibrate at room temperature for 20 minutes before initiating the test.
2. Create standards with dilutions of 100, 50, 25, 12.5, and 6.25 µM by adding 30, 15, 7.5, 3.75, and 1.85 µl of the prepared mixture to standard microtubes 1 to 5, respectively.
3. Add 100 µl of the mixture of Solutions A and B to all microtubes, including standards, blanks, and samples (refer to the table below).
4. For samples, add 30 µl of the sample to the corresponding microtube, and for blanks, add 30 µl of distilled water (DW) (refer to the table below).
5. Mix the microtubes vigorously and incubate for 10 minutes at room temperature in the dark.
6. Add 150 µl of Solution E to all microtubes and mix.
7. Add 150 µl of standards, blanks, and samples to ELISA wells and immediately read at 450 nm.

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	S1	S2	S3	S4	S5	Sample	DW
A and B mix	100 µl	100 µl	100 µl	100 µl	100 µl	100 µl	100 µl
Prepared standard	30 µl	15 µl	7.5 µl	3.75 µl	1.85 µl	-	-
Test	-	-	-	-	-	30 µl	-
Blank	-	-	-	-	-	-	30 µl

7. Safety

- The solutions used in this kit are dangerous for human tissue.
- Work with gloves and protective eye wear.
- In case of contact with skin, eyes, etc., wash with plenty of water.
- Seek medical attention promptly for additional treatment.

8. Quality Certifications

9. Further information

This product is developed, designed, and sold exclusively only for research purposes use. The product was not tested for use in diagnostics or for drug development, nor is it suitable for administration to humans or animals.

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10. Other Kits

1. Total Antioxidant Activity Test Kit (FRAP)
2. Catalase activity testing kit
3. Kit to check the amount of NO
4. FRAP Assay test kit
5. Paraoxonase-1 activity testing kit
6. Protein carbonyl testing kit

NOTE

All products have been produced by Karmania Pars Gene company in Iran.