



WHOLE BLOOD STABILIZER SOLUTIONS FOR NITRITE AND S NITROSOTHIOLS

Key benefits of using the “Standardized Stabilizer Solution”

1. **Safety - Safe to handle and use.** No Chemical sourcing, weighing, mixing, diluting, packaging is needed. Additional waste disposal during mixing is eliminated. Eliminates the use and disposal of contaminated pipettes, vials, containers and washing mixing vessels.
2. **Stability** - Stabilized Blood can be **stored for over 6 months** and Nitrite and S Nitrosothiol levels are stable in the blood during storage
3. **Speed** - Rapid, **ready to use** when needed
4. **Savings** - Labor cost for mixing and preparation of solution. Time better spent on conducting more experiments and **no wasted time** preparing and mixing solutions
5. **Secure** - Vials purged with Argon and the capped with the stabilizer solution. Long stem vial with purged argon vial **reduces the oxygen ingress** into the tubes.
6. **Sampling** ease - Millions of blood samples can be taken and stabilized for clinical trials to obtain **reliable, reproducible results for clinical and medical research** applications
7. **Storage** - The stabilizer solution can be stored in cool dry place. The stabilizer solution is **packaged in a crush resistant solid styrofoam** container

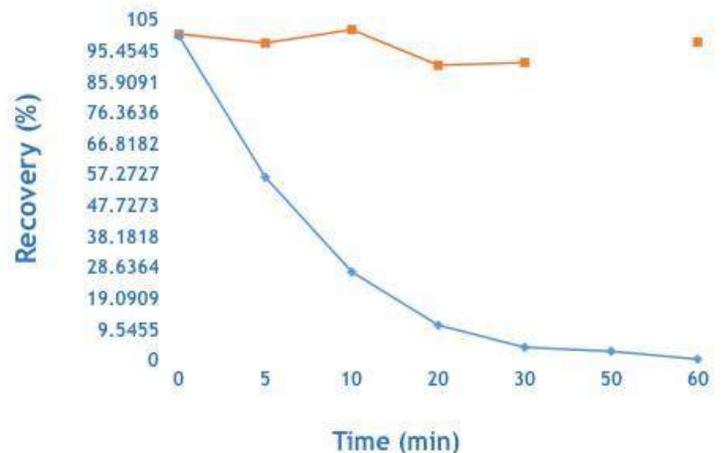
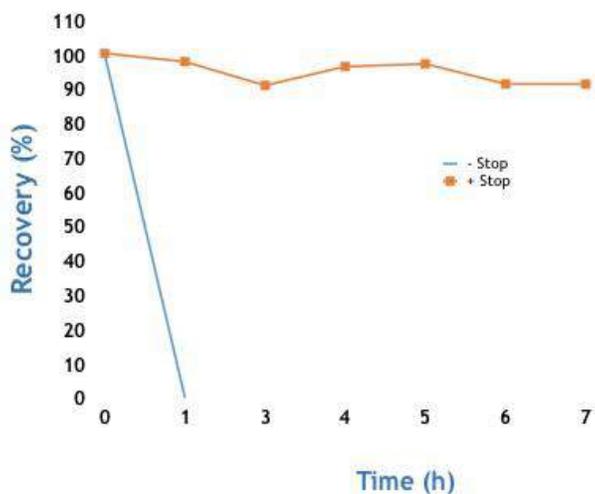
ZYSENSE – STABILIZER SERUM

- Zysense has two products that are being offered for sale to stabilize blood samples and prolong the life of the samples over 6 months
 - ZYSENSE - S NO Stabilizer (Package Size - 50 vials)
 - ZYSENSE - Nitrite Stabilizer (Package Size -50 vials)
- Nitrite Stabilizer - Add 800 ul of whole blood to the Nitrite stabilizer vial which contains 200ul of stabilizer
- S Nitrosothiols - Add 100 ul of centrifuged Red blood cell pellet to the vial containing 900 ul of S Nitrosothiol stabilizer

Data from University of Pittsburgh - VMRI
Dr Mark Gladwin and Dr. Sruti Shiva



Stability of Nitrite in Whole Blood

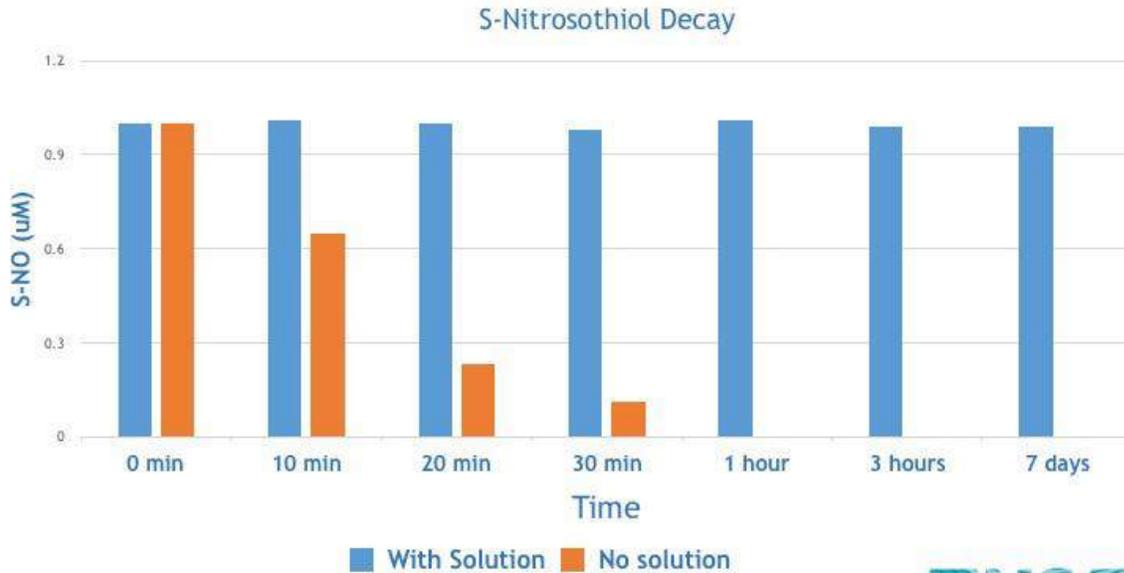


10 μ m of nitrite was added to whole blood and then incubated for different time as indicated with or without nitrite preservation solution.

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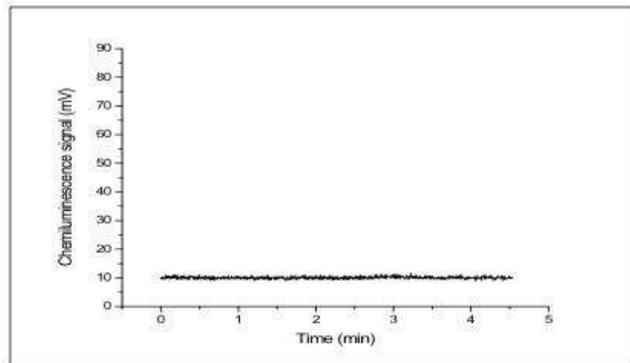
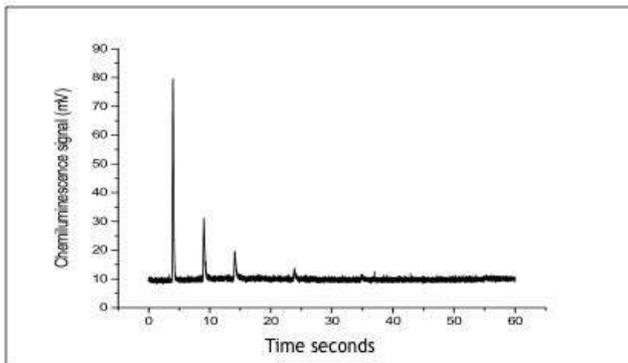
ZYSENSE S-NO STABILIZER SERUM



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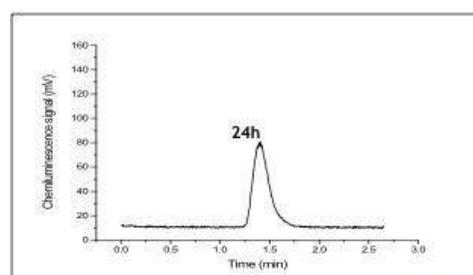
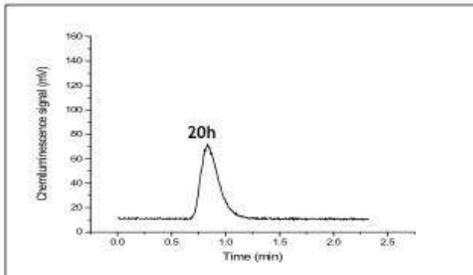
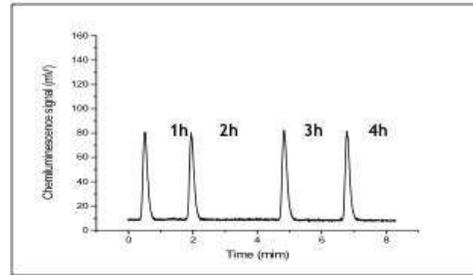
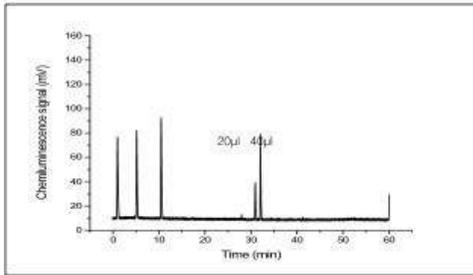
Raw Data of Chemiluminescence Signal in Whole Blood Without Nitrite Preservation Solution (NOA 280i)



Data from University of Pittsburgh - VMRI
Dr. Mark Gladwin Dr. Sruti Shiva



Raw Data of Chemiluminescence Signal in Whole Blood With Nitrite Preservation Solution (NOA 280i)



Data from University of Pittsburgh - VMRI
Dr Mark Gladwin Dr. Sruti Shiva



WHOLE BLOOD STABILIZER SOLUTION

Zysense is launching 2 stabilizer solutions for whole blood for the measurement of nitrite and nitrosothiols in whole blood. The stabilizer solution maintains the stability of nitrite and nitrosothiols for over a year under recommended storage conditions.

Blood is collected from the patient. Then the blood is injected into the Nitrite stabilizer solution.

A. Nitrite stabilizer solution:

1. To stabilize Nitrite, blood is drawn and immediately and **800 ul of blood is added to the 200 ul of NITRITE stabilizer solution** in the glass vial (4 parts blood to 1 part solution).
2. The mixture is vortexed and kept at -80 degrees for storage.

For the individual ingredients used in the development of the stabilizer, please refer to the QR code given below that provides the material safety data sheets of each ingredient used in the stabilizer



B. S-nitrosothiol solution:

1. To stabilize S-NO Hemoglobin, the blood is immediately centrifuged (750 X g for 5 min)
2. The red blood cell pellet is added to the solution at a ratio of 1 part blood to 9 parts solution. **100ul of red blood cell pellet is added to 900ul of S NITROSOTHIOL stabilizer solution.**
3. The mixture is vortexed and kept at -80 degrees for storage

For the individual ingredients used in the development of the stabilizer, please refer to the QR code given below that provides the material safety data sheets of each ingredient used in the stabilizer





S NITROSOTHIOL STABILIZER PACKAGE OF 50 VIALS



NITRITE STABILIZER PACKAGE OF 50 VIALS

Packaging:

Total **50 stabilizer vials** are packaged in a styrofoam box. The vials are designed to enable the addition of blood, centrifuge the blood, and for storage

Observations:

Please note that some of the stabilizer solutions **may have a slightly different color**. Some of the stabilizer solutions especially **“NITRITE” solution is highly concentrated and may precipitate from the solution.** If this is observed It is recommended that the vials are placed in a shaker flask for 30 min before use.