

StockOptions™ ADA buffer kit is a preformulated, sterile filtered set of titrated buffer stocks. The StockOptions buffer stock reagents are supplied as 1.0 M stock solutions in 10 milliliter volumes. Each StockOptions ADA buffer reagent is carefully titrated using Sodium hydroxide. StockOptions ADA is comprised of 20 unique reagents covering the pH range of 5.6 to 7.5 in 0.1 pH unit increments.

Suggested Use

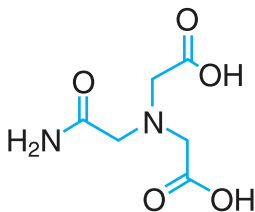
StockOptions ADA is designed to help researchers improve the speed, accuracy, precision, and quality of the formulation of crystallization screen solutions and crystallization optimization solutions. Researchers can use the individual StockOptions reagents to conveniently formulate custom screen solutions or standard screen solutions from Hampton Research kits such as Slice pH™. StockOptions ADA reagents can also be used to create solutions for the refinement and optimization of preliminary crystallization conditions. Finally, StockOptions ADA reagents can be used to create accurate, precise, reproducible, high quality solutions for the production of single crystals. Utilizing the reagents in the StockOptions ADA buffer kit it is possible to formulate and screen 20 unique pH levels.

During crystallization experiments the ADA buffer system can be utilized at a 0.1 M final concentration during the screening, optimization, and production of biological macromolecular crystals. One can dilute the StockOptions ADA buffer solution 1:10 to achieve a final concentration of 0.1 M. For example, dilute 1 milliliter of StockOptions ADA to a final volume of 10 milliliters to achieve a final concentration of 0.1 M ADA.

Please note the final pH of the solution created using StockOptions may vary based upon what other reagents are added to the StockOptions ADA buffer.

Specifications

Useful pH Range: 5.6 - 7.5



Buffer Reagent: ADA

$C_6H_{10}N_2O_5$ M_r 190.16 CAS No [26239-55-4] EC No 247-530-0 pK_a = 6.6

Titrated with: Sodium hydroxide

NaOH M_r 40.00 CAS No [1310-73-2] EC No 215-185-5

Example

Make a custom 10 ml screen reagent of:

Solution Composition:

30% w/v Polyethylene glycol 8,000,
0.1 M ADA pH 6.9

Suggested Stock Solutions:

50% w/v Polyethylene glycol 8,000 (HR2-535),
1.0 M ADA pH 6.9 (StockOptions ADA)

1. Pipet 3 ml of deionized, sterile filtered water into the tube.
2. Pipet 1 ml of 1.0 M ADA pH 6.9 into the tube.
3. Pipet 6 ml of 50% w/v Polyethylene glycol 8,000 into a sterile screw top tube.
4. Seal the tube, and mix until the solution is homogeneous.

For Best Results

Use Hampton Research Optimize™ together with StockOptions reagents for best results.

Technical Support

Inquiries regarding StockOptions ADA Buffer Kit reagent formulation, interpretation of screen results, optimization strategies and general inquiries regarding crystallization are welcome. Please e-mail, fax, or telephone your request to Hampton Research. Fax and e-mail Technical Support are available 24 hours a day. Telephone technical support is available 8:00 a.m. to 4:30 p.m. USA Pacific Standard Time.

Hampton Research
34 Journey

Aliso Viejo, CA 92656-3317 U.S.A.

Tel: (949) 425-1321 • Fax: (949) 425-1611

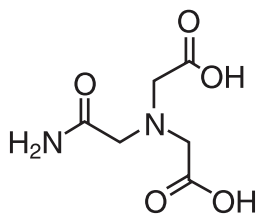
Technical Support e-mail: tech@hrmail.com

Website: www.hamptonresearch.com

Tube #	pH \diamond	Buffer	Titrant
1.	5.6	1.0 M ADA	Sodium hydroxide
2.	5.7	1.0 M ADA	Sodium hydroxide
3.	5.8	1.0 M ADA	Sodium hydroxide
4.	5.9	1.0 M ADA	Sodium hydroxide
5.	6.0	1.0 M ADA	Sodium hydroxide
6.	6.1	1.0 M ADA	Sodium hydroxide
7.	6.2	1.0 M ADA	Sodium hydroxide
8.	6.3	1.0 M ADA	Sodium hydroxide
9.	6.4	1.0 M ADA	Sodium hydroxide
10.	6.5	1.0 M ADA	Sodium hydroxide
11.	6.6	1.0 M ADA	Sodium hydroxide
12.	6.7	1.0 M ADA	Sodium hydroxide
13.	6.8	1.0 M ADA	Sodium hydroxide
14.	6.9	1.0 M ADA	Sodium hydroxide
15.	7.0	1.0 M ADA	Sodium hydroxide
16.	7.1	1.0 M ADA	Sodium hydroxide
17.	7.2	1.0 M ADA	Sodium hydroxide
18.	7.3	1.0 M ADA	Sodium hydroxide
19.	7.4	1.0 M ADA	Sodium hydroxide
20.	7.5	1.0 M ADA	Sodium hydroxide

\diamond pH is the measured pH at 25.0 degrees Celsius of the 1.0 M ADA solution.
pH adjustment performed using Sodium hydroxide.

Buffer Reagent: ADA



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Titrated with: Sodium hydroxide

NaOH M_r 40.00 CAS No [1310-73-2] EC No 215-185-5