

Compound Handling Instructions

Simple, practical guidance for receiving, preparing, storing and using Adooq research compounds.

01
RECEIVE
Centrifuge before opening

02
DISSOLVE
Follow product solubility

03
STORE
Aliquot; avoid freeze-thaw

04
DILUTE
Add gradually while mixing

01 Upon Receipt

During transportation, a small amount of product may adhere to the wall, neck or cap of the vial. Before opening, briefly centrifuge the vial to collect the material at the bottom. This is especially useful for products supplied in small quantities and helps minimize product loss.

Store the product according to the conditions stated on the product label, product page or COA. Products requiring special shipping or storage conditions are handled accordingly. A melted ice pack upon delivery does not necessarily indicate that product quality has been affected.

02 Preparing a Stock Solution

Select an appropriate solvent based on the solubility information provided on the product page and the requirements of your experiment. DMSO and water are commonly used for stock preparation.

$$\text{Concentration (mg/mL)} = \text{Molecular Weight (g/mol)} \times \text{Concentration (mM)} \times 10^{-3}$$

Use fresh, high-quality solvent. DMSO is hygroscopic and should be kept tightly closed. For small-quantity products, adding solvent directly to the original vial can help reduce material loss. Mix thoroughly by pipetting or vortexing. Sonication may be useful for compounds that dissolve slowly. Gentle warming may improve dissolution for some compounds; avoid excessive heating unless product-specific stability information is available.

Confirm that the stock solution is clear and free of visible particles before use.

03 Storage of Compounds and Stock Solutions

Always follow product-specific storage information on the product page or COA. As a general practice, aliquot stock solutions into volumes suitable for routine use and store at -20°C or -80°C, as appropriate for the compound. Avoid repeated freeze-thaw cycles.

Light-sensitive, moisture-sensitive, air-sensitive or otherwise unstable products may require additional precautions. Follow any special instructions supplied with the individual product.

04 Preparing a Working Solution

Prepare working solutions by diluting the stock into the appropriate experimental medium or buffer. When using a concentrated DMSO stock, add it gradually to the aqueous medium while mixing. Rapid dilution may cause poorly water-soluble compounds to precipitate.

Stepwise dilution is recommended when precipitation is a concern. After dilution, mix thoroughly and inspect for visible precipitation. When appropriate, sonication may help improve dispersion or dissolution. Whenever practical, prepare working solutions fresh before use.

Tip for small quantities Prepare the stock directly in the original vial whenever practical to reduce transfer loss.

Application & Troubleshooting

Keep the workflow simple. Product-specific information should always take precedence.

05 Cell-Based Assays

DMSO is commonly used to prepare concentrated stock solutions for cell-based experiments. After dilution into culture medium, keep the final DMSO concentration as low as practical and within the tolerance of the specific cell line and assay. Include an appropriate vehicle control containing the same final concentration of DMSO.

Hydrophobic compounds may precipitate when transferred from DMSO into aqueous culture medium. Gradual dilution with continuous mixing can help reduce precipitation. Verify that the final working solution is suitable for the experimental conditions before use.

06 Sterilization of Working Solutions

Adooq compounds should not be assumed to be sterile unless specifically stated. When a sterile working solution is required, filtration through an appropriate 0.22 µm sterile membrane filter may be used, provided the compound is fully dissolved and compatible with the filter material.

Do not use autoclaving or other high-temperature sterilization methods unless compound stability under those conditions has been established. Use sterile solvents, containers and standard aseptic laboratory procedures where required.

07 Research Formulations

Formulation requirements vary among compounds because of differences in solubility, stability and experimental design. A DMSO stock may be further diluted with an appropriate aqueous vehicle when the compound remains soluble. Compounds with limited aqueous solubility may require a suitable co-solvent, surfactant, carrier or suspending system.

Published formulations may provide a useful starting point, but conditions should be evaluated for the specific compound and research model. Adooq Bioscience does not provide clinical or therapeutic dosing recommendations.

08 Troubleshooting Poor Solubility

If a compound does not dissolve as expected, first confirm the molecular weight, concentration calculation, solvent selection and solvent condition. Hygroscopic solvents such as DMSO can change after prolonged exposure to moisture.

If necessary, reduce the target stock concentration, mix thoroughly, use sonication when appropriate, or consider gentle warming when product stability permits. Check again for precipitation after dilution into aqueous buffer or culture medium. Prolonged mixing will not overcome a concentration that exceeds the compound's practical solubility.

VERIFY MW + concentration	CHECK solvent condition	MIX vortex / sonicate	REVIEW precipitation
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09 Safety and Technical Support

Consult the product Safety Data Sheet (SDS) before handling and use appropriate laboratory personal protective equipment and standard chemical handling procedures.

For product-specific questions regarding handling, solubility or storage, contact Adooq Bioscience Technical Support at support@adooq.com.

Research Use Only	Product-specific guidance comes first.
Not intended for human, diagnostic, therapeutic or veterinary use.	Refer to the product page, Data Sheet and COA for individual requirements.