

Compound Handling Instructions

1 What are the shipping conditions of MCE products?

A: MCE stable products are shipped at room temperature.

B: Liquid or special products are shipped with blue ice or MCE[®] Cooling Rack in a foam holding box. MCE products are relatively stable at room temperature. Their quality will not be affected if the blue ice melts upon receiving, and products can be used with confidence.

MCE is dedicated to provide high quality products and meet customer satisfaction. If you have any questions or concerns, please contact after-sales staff on phone 609-228-6898 or by email sales@MedChemExpress.com.

2 How can I obtain product Data Sheet, QA files, etc.?

A: We automatically send product Data Sheet and QA documents to your email address after shipment.

B: You can download these files on the product webpage of our website MedChemExpress.com.

C: You can also request the materials from our customer service.

3 What are the proper storage guidelines for MCE product?

Recommended storage conditions and precautions regarding proper product handling are contained in the product Certificate of Analysis (COA).

Here are **GENERAL** storage guidelines for compounds:

| | | |
|-------------|-------|----------|
| Powder: | -20°C | 3 years |
| | 4°C | 2 years |
| In solvent: | -80°C | 6 months |
| | -20°C | 1 month |

If the solution is stored at -20°C for more than one month, it should be re-examined to ensure its efficacy. Avoid repeated freeze and thaw cycles.

Storage conditions for some special products should refer to their COAs.

4 How should I handle the products before formulation or use?

During transportation, the compounds may adhere to the neck or cap of the vial. Before opening the vial, please centrifuge to gather the compound at the bottom of the vial.

5 How can I prepare the compound stock solution?

Select the appropriate solvent for the preparation of stock solution based on your experiment needs.

Solubility information is available at the product webpage. Currently we only offer solubility data in DMSO and/or water, for solubility of other solvents, please email

to tech@MedChemExpress.com. If you can not find the solubility information you are looking for, or you are having difficulty preparing a product in solution form, you can also get help via the email above. Once prepared, aliquot the stock solution to routine usage volumes and store at -20°C or -80°C. Avoid repeated freeze and thaw cycles.

| | | |
|--------|----------------------------|---|
| Sample | DMSO > A mg/mL | DMSO soluble (A mg can be dissolved in 1 mL DMSO, saturation unknown) |
| | H ₂ O < B mg/mL | H ₂ O insoluble or slightly soluble |
| | DMSO < C mg/mL | DMSO insoluble or slightly soluble (C mg can not be dissolved in 1 mL DMSO) |

Molarity Calculator from MCE official website is recommended for the calculation: www.MedChemExpress.com/Molarity%20Calculator.htm

6 How do I dilute the compound solution for cell assay?

Stock solution using ddH₂O as a solvent can be directly diluted with medium to prepare the working solution.

When DMSO is used to prepare the stock solution, the stock solution is diluted in the culture medium to prepare a working solution. Make sure the concentration of DMSO is <0.5% to avoid poisoning the cells. A negative control in the experiment is usually the culture medium with DMSO at the same concentration. It is recommended that the process of dilution is performed in a stepwise manner to avoid compound precipitating caused by fast change of concentration.

7 How do I use these compounds during animal experiments? ie: method of administration, dosage, solvent preparation, and administrative cycle?

Stock solution using ddH₂O as a solvent can be directly diluted with PBS or 0.9% NaCl to ready the working solution.

Stock solution using DMSO as a solvent can also be diluted with PBS or 0.9% NaCl to prepare the working solution. In order to reduce its toxicity to animals, the final concentration of DMSO in working solution should preferably be 2% or lower. When precipitates form during the dilution process due to their low water solubility, you can also use a co-solvent to help dissolve the compounds. Common co-solvents contain glycerol, Tween 80, sodium carboxymethylcellulose (CMC-Na), cyclodextrin, PEG400, etc. A suspension can also be used for oral or intraperitoneal injection. Please send an email to tech@MedChemExpress.com if you require further assistance.

Methods of administration and solvent preparation used in publications may be available at the product webpage. MCE has not independently confirmed the accuracy of these methods and they are distributed for reference only.

Conversion between different animal models based on BSA:

| Species | Weight (kg) | Body Surface Area (m ²) | K _m factor |
|------------|-------------|-------------------------------------|-----------------------|
| Dog | 10 | 0.5 | 20 |
| Rabbit | 1.8 | 0.15 | 12 |
| Guinea pig | 0.4 | 0.05 | 8 |
| Rat | 0.15 | 0.025 | 6 |
| Hamster | 0.08 | 0.02 | 5 |
| Mouse | 0.02 | 0.007 | 3 |

Animal A (mg/kg) = Animal B (mg/kg) multiplied by $\frac{\text{Animal B } K_m}{\text{Animal A } K_m}$

Administration volumes considered good practice (and possible maximal dose volumes):

| Species | Route and volumes (mL/kg) | | | | | |
|---------|---------------------------|---------|---------|------------|--------------|------------------|
| | Oral | s.c. | i.p. | i.m. | i.v. (bolus) | i.v. (slow inj.) |
| Mouse | 10 (50) | 10 (40) | 20 (80) | 0.05 (0.1) | 5 | (25) |
| Rat | 10 (40) | 5 (10) | 10 (20) | 0.1 (0.2) | 5 | (20) |
| Rabbit | 10 (15) | 1 (2) | 5 (20) | 0.25 (0.5) | 2 | (10) |
| Dog | 5 (15) | 1 (2) | 1 (20) | 0.25 (0.5) | 2.5 | (5) |

Products are for research use only and are not intended for human use. We do not sell to patients.

8 Is the compound sterile?

DMSO or water is commonly used to prepare compound solutions. If sterilization is needed, it is recommended to filter the working solution through a 0.22 µm sterile filter membrane. Before filtering, please ensure that both the stock solution and working solution are clear and free of precipitation under microscopic observation.

Avoid using high-temperature and high-pressure sterilization methods.

1. If DMSO is used as the solvent, the prepared solution is generally sterile due to DMSO's antimicrobial properties. However, it is important to keep the operating environment and the instrument sterile. It is recommended to prepare a 1,000x DMSO stock solution before the experiment. If contamination occurs, filter the working solution for sterilization.

2. If water is used as the solvent, it is recommended to prepare a stock solution of 50x or higher with sterile water, and then filter the working solution for sterilization.

Our Product Portfolio Includes:

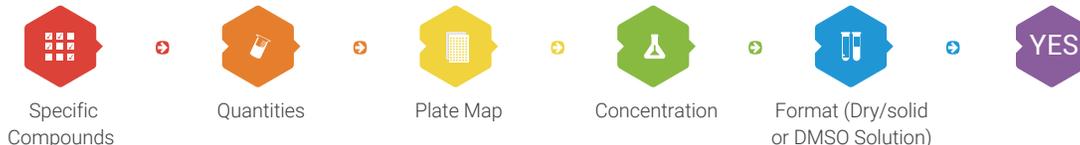


Compound Screening Libraries (96-well):

A collection of stored chemicals optimized for a specific research purpose, usually used in **high-throughput screening**, **drug discovery** and **new indication research**. MedChemExpress (MCE) compound libraries consist of **over 20,000+ bioactive molecules** with validated biological and pharmacological activities.

- Bioactive Compound Library
- Kinase Inhibitor Library
- FDA-Approved Drug Library
- Epigenetics Compound Library
- GPCR/G Protein Compound Library
- Clinical Compound Library
- Anti-Cancer Compound Library
- ...

Customize Your Library:



Top Publications Citing Use of MCE Products:



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