

JBScreen Buffer Kit

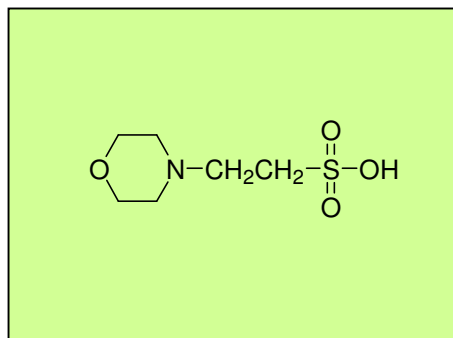
MES

Cat. No.: CO-103

The **JBScreen Buffer Kit – MES** contains ready-made buffer solutions with preset pH values. Each buffer is provided as a 1.0 M stock solution and supplied in 10 ml volumes. The **JBScreen Buffer Kit – MES** comprises 12 reagents, covering a pH range from 5.6 – 6.7 in 0.1 pH unit increments. Each MES solution has been carefully titrated using sodium hydroxide.

Specifications

Buffer Reagent: MES
2-Morpholinoethanesulfonic acid
Molecular Formula: C₆H₁₃NO₄S
Molecular Weight: 195.24
EC Number: 2246323
CAS Number: 4432-31-9
pKa-Value (20 °C): 6.15
Useful pH-Range: 5.6 – 6.7
Titrated with: Sodium Hydroxide



Store at 4 °C

Application

JBScreen Buffer Kit – MES is designed for convenient reproduction and optimization of crystallization conditions. The solutions can be used to reformulate conditions of the **JBScreen family**, e.g. JBScreen Classic, JBScreen Basic, JBScreen Cryo, (see below for an example) and other commercially available crystallization screens. Furthermore, **JBScreen Buffer Kit – MES** can be employed for the straightforward preparation of custom screen solutions for the refinement and optimization of initial crystallization conditions. The **JBScreen Buffer Kit** formulations will help to save time preparing accurate and high-quality reagents for the reproducible production of single protein crystals.

Example:

JBScreen Classic 4, condition D1 (= G1 in JBScreen Classic HTS I):
10 % w/v PEG 8000, 100 mM MES pH 5.6, 200 mM Zinc Acetate

Required stock solutions:
50 % w/v PEG 8000, **1.0 M MES pH 5.6 (JBScreen Buffer Kit)**,
1.0 M Zinc Acetate

In order to make up 1 ml of a reservoir solution pipette

1. 450 µl of sterile deionized water
2. 200 µl of 1.0 M Zinc Acetate
3. 100 µl of 1.0 M MES pH 6.5
4. 250 µl of 50 % w/v PEG 8000

into the plate reservoir. Mix thoroughly until the solution is homogeneous.

Note: The final pH of the reservoir solution may vary from the indicated pH, depending on the nature of the reagents added to the JBScreen Buffer Kit solution.

For optimal results in the crystallization strategy, it is recommended to use the **JBScreen Buffer Kit – MES** together with **JBScreen Single Stocks**.