

JBScreen Buffer Kit

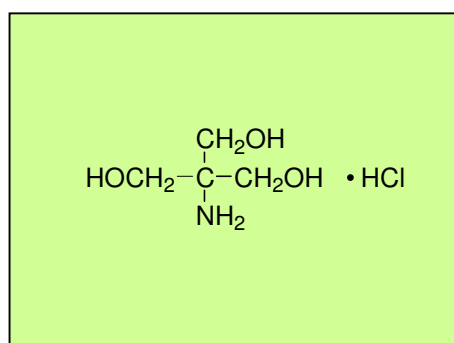
Tris-HCl

Cat. No.: CO-105

The **JBScreen Buffer Kit – Tris-HCl** 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 – Tris-HCl** comprises 20 reagents, covering a pH range from 7.1 – 9.0 in 0.1 pH unit increments. Each Tris-HCl solution has been carefully titrated using hydrochloric acid.

Specifications

Buffer Reagent: Tris-HCl
Tris(hydroxymethyl)aminomethane hydrochloride
Molecular Formula: $C_4H_{11}NO_3 \cdot HCl$
Molecular Weight: 157.60
EC Number: 2146845
CAS Number: 1185-53-1
pKa-Value (20°C): 8.30
Useful pH-Range: 7.1 – 9.0
Titrated with: Hydrochloric Acid



Store at 4°C

Application

JBScreen Buffer Kit – Tris-HCl 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 – Tris-HCl** 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 7, condition A2 (= B10 in JBScreen Classic HTS II):
12 % w/v MPD, 100 mM Tris-HCl pH 8.5, 50 mM Magnesium Chloride

Required stock solutions:
100 % w/v MPD, **1.0 M Tris-HCl pH 8.5 (JBScreen Buffer Kit)**,
2.0 M Magnesium Chloride

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

1. 755 μl of sterile deionized water
2. 25 μl of 2.0 M Magnesium Chloride
3. 100 μl of 1.0 M Tris-HCl pH 8.5
4. 120 μl of 100 % w/v MPD

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 – Tris-HCl** together with **JBScreen Single Stocks**.