

Tris Buffered Saline (TBS) Solutions

DNase, RNase and protease-none detected

Catalog Number **ML 023-01 (1X, without phenol red)**
ML 023-02 (1X, with phenol red)
ML 023-03 (10X, without phenol red)
ML 023-04 (10X, with phenol red)

Storage Temperature 15~30°C

Product Description

Tris buffered saline (TBS) solution simulates the salinity, osmotic pressure, and pH of the living body and is used for a wide variety of purposes in molecular biology studies. Tris {tris(hydroxymethyl)-aminomethane}, which is easily soluble, exhibits a pKa of 8.1 (25°C) and buffers at maximum efficiency between pH ranges 7.0~9.1. When the pH goes below 7.0 or above 9.1, however, the product's buffering capability diminishes and the pH becomes susceptible to temperature (1°C increase leads to 0.03 drop in pH). For accurate pH measurements, a specialized pH probe for Tris solutions is required. The product is highly reactive and cannot be used with glutaraldehyde, formaldehyde, and glyoxal. Some animal cells also show toxic responses to the product; therefore such facts should be considered in advance to using the product.

ML 023-01 contains 8.0 g/L NaCl, 0.2 g/L KCl and 3.0 g/L Tris.

ML 023-02 contains 8.0 g/L NaCl, 0.2 g/L KCl, 3.0 g/L Tris and 0.015 g/L phenol red.

ML 023-03 contains 80 g/L NaCl, 2 g/L KCl and 30 g/L Tris.

ML 023-04 contains 80 g/L NaCl, 2 g/L KCl, 30 g/L Tris and 0.15 g/L phenol red. 10X TBS solution should be diluted to working concentrations using Ultra Pure Water (**ML 019-02**).

Storage/Stability

The concentrated TBS solutions should be stored at 15~30°C. Deterioration of the solution may be recognized by (1) precipitate or particulate matter throughout the solution, (2) cloudy appearance, (3) color change, and/or (4) pH change. Product label bears expiration date.

Precautions

For *In Vitro* Use Only

| Components | g/L | | | |
|------------|----------|----------|----------|----------|
| | ML203-01 | ML203-02 | ML203-03 | ML203-04 |
| NaCl | 8.0 | 8.0 | 80 | 80 |
| KCl | 0.2 | 0.2 | 2 | 2 |
| Tris | 3.0 | 3.0 | 30 | 30 |
| Phenol red | - | 0.015 | - | 0.15 |

Product Profile

| | |
|------------------------------|--|
| DNase, RNase, and Proteinase | None Detected |
| Sterility | Sterilized by autoclaving (121°C, 20 min) and 0.2 μm filtration system. Sterility tests are performed in accordance with protocols described in USP. |