

Buffer EX

Cat: B3060

Size: 25mL/100mL

Storage: Store at room temperature (0-30°C), valid for 3 years, avoid contact with high temperature or open flame.

Introduction:

Buffer EX is a mixture of a variety of non-toxic or low toxic organic solvents, low toxicity (close to isopropyl alcohol toxicity) and extremely weak volatility, can perfectly replace chloroform, to extract phenol from Trizol reagents, separation and purification of RNA purposes. Due to the low toxicity and non-volatilization of Buffer EX, users do not need to operate in the fume hood if they use Trizol reagent for RNA extraction.

Physical and Chemical Properties of the Product:

Melting point: -41.8°C

Boiling point: 178.3°C

Solubility (water): 1.16g/100mL(20°C)

Density: 1.12~1.19g/mL

Appearance: Colorless liquid with special odor.

Flash point: 84.4°C

LD50: (rat, transoral) 4.293g/kg

Protocols(only for reference):

In the experiment of extracting RNA with Trizol reagent or extracting nucleic acid on the principle of phenol chloroform, just replace the step of adding chloroform with adding Buffer EX equal to the volume of chloroform, leaving the other steps unchanged. For example, when Trizol reagent is used to extract RNA, 200 μ L chloroform should be added to the sample dissolved by 1mL Trizol reagent, then 200 μ L Buffer EX should be added to the sample dissolved by 1mL Trizol reagent.

Notes:

1. Buffer EX is flammable and is at risk of burning in the presence of open flame, high heat, or contact with oxidants!(Chloroform is non-flammable)
2. Health hazard: Direct contact with Buffer EX can be irritating to the skin. Harmful if inhaled, ingested, or absorbed through the skin in large quantities. Heavy inhalation can be irritating to the eyes, mucous membranes, and upper respiratory tract.
3. The density of Buffer EX is lower than that of chloroform(density 1.48g/mL), and the dense sediment may be deposited at the bottom of the tube after phase separation, rather than in the interphase.
4. After the phase separation of some samples, the interphase precipitates formed by Buffer EX

will be thicker and denser than those formed by chloroform.

5. The density of Buffer EX(density 1.12~1.19g/mL) is lower than that of chloroform, so when the fat content in the sample is high, the density of organic phase dissolved with fat may be lower than that of water phase. After phase separation, the density of organic phase is in the upper layer and water phase is in the lower layer; Some manufacturers' Trizol reagents have a high salt content, which may make the density of the water phase greater than that of the organic phase, resulting in the upper and lower layers being reversed after the phase separation. In this case, you can add another 200 μ L Buffer EX(to increase the density of the organic phase) to re-mix the centrifuge phase separation; or remove the upper phase with a pipette and drain the lower phase into a new RNase-free 1.5mL centrifuge tube for further operation.
6. Cannot replace some special uses of chloroform, such as dissolving and bonding plexiglass (PMMA, polymethyl methacrylate).