

## Sodium Bicarbonate Solution (7.5%)

### Introduction

Sodium bicarbonate is a widely used buffering agent in cell culture systems. It helps maintain physiological pH by neutralizing acidic by-products generated during cellular metabolism. As cells proliferate, metabolic CO<sub>2</sub> accumulates in the culture environment, dissolves into the medium, and forms carbonic acid, which can lower pH and adversely affect cell viability and growth characteristics. Supplementation with sodium bicarbonate counteracts these fluctuations, particularly under controlled CO<sub>2</sub> incubation conditions.

In addition to its buffering capacity, sodium bicarbonate serves as a source of carbonate ions, which are essential for various biosynthetic pathways in mammalian cells. This makes it an important component in many basal and complex cell culture media formulations.

This solution is sterile-filtered and ready for direct use in cell culture media and general laboratory applications.

### Storage

Store at -20°C for one year. For short-term or frequent use, store at 4°C.

### Note

1. Avoid microbial contamination during use.
2. For your safety and health, please wear lab coats and gloves during the experiment.
3. For research use only. Not to be used in clinical diagnostic or clinical trials.



**APExBIO Technology**  
[www.apexbt.com](http://www.apexbt.com)  
7505 Fannin street, Suite 410, Houston, TX 77054.  
Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: [info@apexbt.com](mailto:info@apexbt.com)