Cat No. 71-B16

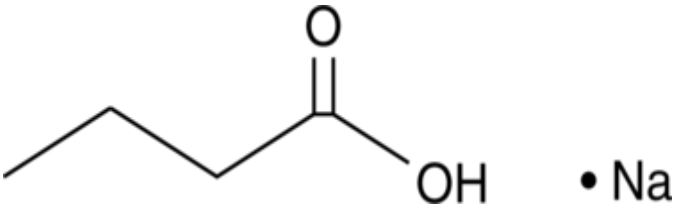
Sodium Butyrate

5 g

For research purposes only

Sodium Butyrate is a short fatty acid chain that has an effect on the molecular, tissue and cellular levels. Sodium Butyrate has been shown to induce cell growth arrest, differentiation and apoptosis in cancer cells. It inhibits histone deacetylase (HDAC) and decreases Ca^{2+} release from intracellular stores. Sodium butyrate has been used to direct the differentiation of mouse embryonic stem cells into hepatocytes when used in combination with Activin A.

TECHNICAL INFORMATION



Other Names: Butyric acid, Sodium Salt

Chemical Formula: $C_4H_8O_2 \cdot Na$

CAS Number: 156-54-7

Molecular Weight: 111.1

Purity: >98%

Appearance: a crystalline solid

Solubility: DMSO

STORAGE AND HANDLING

Storage: Store at 4°C and protected from light. Following reconstitution, store aliquots at -20°C.

Stability: Stock solutions stable at -20°C for up to 2 years.

Shipping Conditions: Shipped at room temperature.

PRODUCT USE

Soluble in DMSO. For a 10 mM concentrated stock solution, add 4.5 ml of DMSO to 5mg of the compound, If precipitate is observed, vortex for 5 minutes. For most cells, the maximum tolerance to DMSO is less than 0.5%.

REFERENCES

1. Ware et al. (2009) Histone deacetylase inhibition elicits an evolutionarily conserved self-renewal program in embryonic stem cells. Cell Stem Cell. 4(4):359-69.
2. Zhang et al. (2011) Efficient Generation of Fully Reprogrammed Human iPS Cells via Polycistronic Retroviral Vector and a New Cocktail of Chemical Compounds. PLoS One. 6(10): e26592.
3. Boffa et al. (1978) Suppression of histone deacetylation in vivo and in vitro by sodium butyrate. J Biol Chem. 253(10):3364-6.