**Product overview**

**Name**  
Sodium butyrate

**Cat No**  
HB1399

**Short description**  
HDAC inhibitor. Directs mESC differentiation into hepatocytes.

**Biological description**  
Histone deacetylase (HDAC) inhibitor (IC$_{50}$ values are 0.3, 0.3 and 0.4 mM for HDAC1, 7 and 2 respectively). Does not inhibit HDAC6 and HDAC10. Upregulates expression of pluripotency genes in iPSCs and directs mESC differentiation into hepatocytes. Improves cognition and shows anti-Alzheimer's disease and antidepressant actions.

**Alternative names**  
NaB; SB

**Biological action**  
Inhibitor

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**Properties**

**Chemical name**  
Butanoic acid sodium salt

**Molecular Weight**  
110.09

**Chemical structure**

![Chemical structure](image)

**Molecular Formula**  
C$_4$H$_7$NaO$_2$

**CAS Number**  
156-54-7

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**Storing and Using Your Product**

**Storage instructions**  
room temperature

**Solubility overview**  
soluble in water (100mM)

**Important**  
This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

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**References for Sodium butyrate**

**Histone deacetylase is a target of valproic acid-mediated cellular differentiation.**


**PubMedID:**  
14871841
Sodium butyrate functions as an antidepressant and improves cognition with enhanced neurotrophic expression in models of maternal deprivation and chronic mild stress.


PubMedID: 25233278

Sodium butyrate efficiently converts fully reprogrammed induced pluripotent stem cells from mouse partially reprogrammed cells.


PubMedID: 25093667

Sodium butyrate improves memory function in an Alzheimer’s disease mouse model when administered at an advanced stage of disease progression.


PubMedID: 21593570