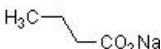


Product datasheet

Sodium butyrate, Histone deacetylase inhibitor ab120948

[1 References](#) [3 Images](#)

Overview

Product name	Sodium butyrate, Histone deacetylase inhibitor
Description	Histone deacetylase inhibitor
Biological description	Histone deacetylase inhibitor (IC ₅₀ values are 0.3, 0.4 and 0.3 mM for HDAC1, 2 and 7, respectively). Shows no inhibition of HDAC6 and 10. Anticancer activity. Crosses the blood-brain barrier.
CAS Number	156-54-7
Chemical structure	

Properties

Chemical name	Sodium butanoate
Molecular weight	110.09
Molecular formula	C ₄ H ₇ NaO ₂
PubChem identifier	5222465
Storage instructions	Store at Room Temperature. Store under desiccating conditions. The product can be stored for up to 12 months.
Solubility overview	Soluble in water to 100 mM
Handling	<p>Wherever possible, you should prepare and use solutions on the same day. However, if you need to make up stock solutions in advance, we recommend that you store the solution as aliquots in tightly sealed vials at -20°C. Generally, these will be useable for up to one month. Before use, and prior to opening the vial we recommend that you allow your product to equilibrate to room temperature for at least 1 hour.</p> <p>Refer to SDS for further information</p> <p>Need more advice on solubility, usage and handling? Please visit our frequently asked questions (FAQ) page for more details.</p>
SMILES	CCCC(=O)[O-].[Na+]
Source	Synthetic

Applications

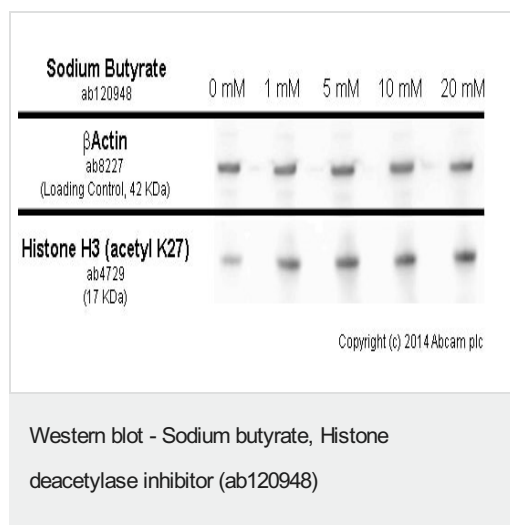
The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab120948 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Functional Studies		Use at an assay dependent concentration.

Images



HeLa cells were incubated at 37°C for 6h with vehicle control (0 μ M) and different concentrations of sodium butyrate (ab120948).

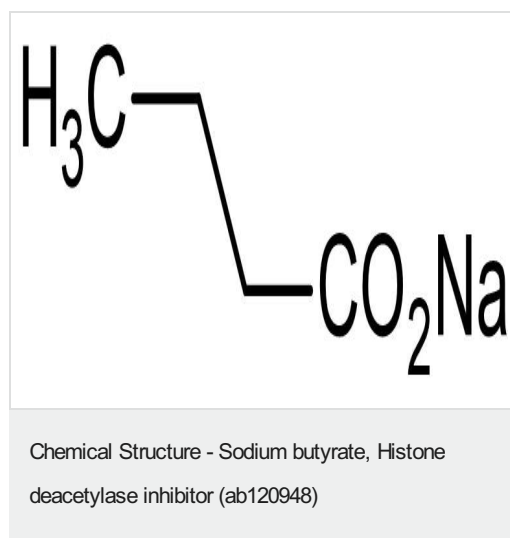
Increased expression of histone H3 (acetyl K27) (**ab4729**) in HeLa cells correlates with an increase sodium butyrate concentration, as described in literature.

Whole cell lysates were prepared with RIPA buffer (containing protease inhibitors and sodium orthovanadate), 20 μ g of each were loaded on the gel and the WB was run under reducing conditions.

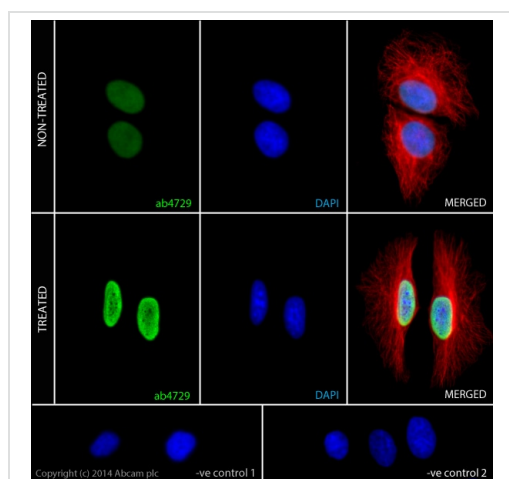
After transfer the membrane was blocked for an hour using 5% BSA before being incubated with **ab4729** at 1 μ g/ml and **ab8227** at 1 μ g/ml overnight at 4°C. Antibody binding was detected using an anti-rabbit antibody conjugated to HRP (**ab97051**) at 1/10000 dilution and visualised using ECL development solution.

HeLa cells were incubated at 37°C for 6h with vehicle control (0 μ M) and different concentrations of sodium butyrate (ab120948).

Increased expres



2D chemical structure image of ab120948, Sodium butyrate, Histone deacetylase inhibitor



Immunocytochemistry/ Immunofluorescence -
Sodium butyrate, Histone deacetylase inhibitor
(ab120948)

ab4729 staining Histone H3 (acetyl K27) in HeLa cells. The cells were incubated with 10mM Sodium butyrate (ab120948) for 6 hours (Treated) or solvent-only for control purposes (Non-treated). Cells were fixed with 100% methanol (5min) and then blocked in 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated with **ab4729** at 0.5µg/ml and **ab7291** at 1µg/ml overnight at +4°C, followed by a further incubation at room temperature for 1h with a anti-rabbit AlexaFluor®488 secondary antibody (**ab150077**) at 2 µg/ml (shown in green) and a goat anti-mouse AlexaFluor®594 (**ab150120**) at 2 µg/ml (shown in pseudo colour red). Nuclear DNA was labelled in blue with DAPI. Negative controls: 1– Rabbit primary and anti-mouse secondary antibody; 2 – Mouse primary antibody and anti-rabbit secondary antibody. Controls 1 and 2 indicate that there is no unspecific reaction between primary and secondary antibodies used.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES, NOT FOR USE IN HUMANS"

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