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# Arginine Butyrate

National Cancer Institute

## Source

National Cancer Institute. *Arginine Butyrate*. NCI Thesaurus. Code C2570.

The butyric acid salt of the amino acid arginine. In EBV-related lymphomas, arginine butyrate induces EBV thymidine kinase transcription and may act synergistically with the antiviral agent ganciclovir to inhibit cell proliferation and decrease cell viability. In addition, the butyrate moiety inhibits histone deacetylase, which results in hyperacetylation of histones H3 and H4. Acetylated histones have a reduced affinity for chromatin; this reduced histone-chromatin affinity may allow chromosomal unfolding, potentially enhancing the expression of genes related to tumor cell growth arrest and apoptosis. (NCI04)