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4-Hydroxybutanoic Acid

National Cancer Institute

Source

National Cancer Institute. *4-Hydroxybutanoic Acid*. NCI Thesaurus. Code C61773.

A naturally occurring short-chain fatty acid, and immediate precursor of gamma amino butyric acid (GABA) with neuromodulatory and anesthetic properties. 4-Hydroxybutyric Acid (GHB) is found in all human tissues, with the highest concentration in the brain. This agent stimulates the GHB receptor, and to a lesser extent GABA-B receptors. Although, the precise function and metabolic pathways of GHB are not fully understood, this agent easily crosses the blood-brain barrier, and affects the activities and levels of dopamine, acetylcholine, dynorphin and serotonin. The primary effect of GHB is central nervous system depression, thereby, its main usage is to induce anesthesia.