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Pirbuterol

National Cancer Institute

Source

National Cancer Institute. *Pirbuterol*. NCI Thesaurus. Code C61893.

A short-acting, beta-adrenergic receptor agonist with bronchodilator activity. Pirbuterol selectively binds to beta-2 adrenergic receptors in bronchial smooth muscle, thereby activating intracellular adenylyl cyclase, an enzyme that catalyzes the conversion of adenosine triphosphate (ATP) to cyclic-3',5'-adenosine monophosphate (cAMP). Increased cAMP levels cause relaxation of bronchial smooth muscle, relieve bronchospasms, improve mucociliary clearance and inhibit the release of mediators of immediate hypersensitivity from cells, especially from mast cells.