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Fludrocortisone

National Cancer Institute

Source

National Cancer Institute. *Fludrocortisone*. NCI Thesaurus. Code C71629.

A synthetic corticosteroid with antiinflammatory and antiallergic properties.

Fludrocortisone is a mineralocorticoid receptor and glucocorticoid receptor agonist that binds to cytoplasmic receptors, translocates to the nucleus and subsequently initiates the transcription of glucocorticoid-responsive genes such as lipocortins to inhibit phospholipase A2. This prevents the release of arachidonic acid, a precursor to prostaglandins and leukotrienes, both important mediators in the pro-inflammatory response mechanism. In addition, this agent exerts its mineralocorticoid effect on the distal tubules and collecting ducts of the kidney by inducing permease, an enzyme that regulates Na⁺ permeability in cells, thereby enhancing Na⁺ reabsorption and water retention as well as increasing K⁺, H⁺ excretion.