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Desonide

National Cancer Institute

Source

National Cancer Institute. *Desonide*. NCI Thesaurus. Code C61702.

A synthetic glucocorticosteroid for topical use, with anti-inflammatory activity. Desonide binds to glucocorticoid receptors in the cytoplasm, and the ligand-receptor complex is translocated as a homodimer into the nucleus, where transcription activation via glucocorticoid response elements within glucocorticoid-responsive genes occur. This agent induces transcription of genes coding for anti-inflammatory proteins, including lipocortin-1, interleukin-10, interleukin-1 receptor antagonist and neutral endopeptidase. Increased synthesis of lipocortin-1 has an inhibitory effect on phospholipase A2, which in turn inhibits the release arachidonic acid, thereby controlling the biosynthesis of potent mediators of inflammation such as prostaglandins and leukotrienes.