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G(i) Alpha

National Cancer Institute

Source

National Cancer Institute. *G(i) Alpha*. NCI Thesaurus. Code C19275.

Human G(i) Alpha Proteins (G-Alpha 1 Family) are 40-kDa guanine nucleotide-binding alpha protein subunits of heterotrimeric G protein transducers (alpha, beta, gamma) in transmembrane signaling systems involved in hormonal regulation of adenylate cyclase. Containing virtually identical/similar beta and gamma chains, G proteins are most distinguished by alpha chains. G(i) proteins (alpha(i) subunit) inhibit cyclase in response to beta-adrenergic stimuli. Specific alpha chain regions appear to interact with guanine nucleotides, receptors, effector enzymes, and G protein beta-gamma complex. G proteins that inhibit adenylate kinase and regulate other plasma membrane enzymes are substrates for pertussis toxin. (NCI)