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Oncogene N-RAS

National Cancer Institute

Source

National Cancer Institute. *Oncogene N-RAS*. NCI Thesaurus. Code C16889.

Human Oncogene N-RAS is a mutated variant of NRAS Gene (RAS Family), which encodes p21 N-Ras Protein, a monomeric GTPase involved in transmembrane signal transduction that alternates between inactive GDP-bound and active GTP-bound forms. RAS is activated by a guanine nucleotide-exchange factor and inactivated by a GTPase-activating protein. Mitogen-stimulated RAS stabilizes MYC protein and enhances MYC accumulation by the RAS/RAF/MAPK pathway, which appears to inhibit the proteasome-dependent degradation of MYC. Implicated in a variety of human tumors, specific amino acid mutations activate c-RAS and transform cells. Oncogene NRAS disrupts normal cell function.