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Oncogene TRK

National Cancer Institute

Source

National Cancer Institute. *Oncogene TRK*. NCI Thesaurus. Code C18457.

Human Oncogene TRK is a mutated variant of NTRK1 Gene (INSR family), which encodes two alternative type I membrane protein Neurotrophic Tyrosine Kinase Receptor Type 1 with similar biological properties. TRKA-II is primarily expressed in neurons; TRKA-I is non-neuronal. NTRK1 exists as low affinity monomeric and high affinity dimeric structures, with TRKA, TRKB, or TRKC, that bind neurotrophins. TRKA, TRKB, and TRKC partners are preferred by NGF, NT F5 and BDNF, and NT F3, respectively. Ligands stimulate autophosphorylation of TRK. NTRK1 defects cause CIPA. Oncogene TRK disrupts normal cell function.