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ETS Domain

National Cancer Institute

Source

National Cancer Institute. *ETS Domain*. NCI Thesaurus. Code C13719.

Usually C-terminal, the conserved ETS (Erythroblast T transformation Specific) Domain of 85-90 amino acids, rich in positively-charged and aromatic residues, binds to purine-rich DNA with a GGAA/T core. Identified in many transcription factors, many ETS-proteins modulate gene expression through protein-protein interactions with other transcriptional factors and co-factors. Most ETS-proteins are nuclear targets of RAS-MAPK signaling; some affect cell proliferation or apoptosis-related genes. Several are expressed in specific cell lineages to regulate development and differentiation. Deregulated ETS-gene expression or chimeric ETS-proteins are associated with leukemias, some tumors, invasion and metastasis. (NCI)