BACKGROUND

Skeletrophin, also known as MIB2 (mind bomb homolog 2), SKD, ZZANK1 or ZZ5, is an E3 ubiquitin-protein ligase that regulates Notch signaling via protein degradation. Expressed in heart, brain, kidney and skeletal muscle, Skeletrophin positively regulates Notch signaling by ubiquitinating the intracellular domain of Delta receptors, which act as ligands for Notch proteins. This ubiquitination facilitates transendocytosis of the Notch extracellular domain which, in turn, cues transportation of the Notch intracellular domain to the nucleus, where it activates a variety of genes. Skeletrophin localizes to the endosome and is down regulated in primary skin melanomas. Treatment of melanoma cells with 5'-aza-2-deoxycytidine, a demethylating agent, increases Skeletrophin expression, suggesting that down regulation is caused by methylation of the Skeletrophin gene. Six isoforms exist due to alternative splicing events.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: MIB2 (human) mapping to 1p36.33; Mib2 (mouse) mapping to 4 E2.

SOURCE

Skeletrophin (E-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Skeletrophin of human origin.

RESEARCH USE

For research use only, not for use in diagnostic procedures.