



FRYL (h): 293T Lysate: sc-113892

BACKGROUND

In yeast, flies, and worms, the Dbf2-related (Ndr) kinase protein family functions in various aspects of cell polarity and morphogenesis. The *Drosophila melanogaster* protein, furry, is responsible for maintaining integrity of polarized cell extensions, such as epidermal hair cells, lateral extensions of the arista and the shafts of neuronal sensory bristles. Mutations in furry lead to the formation of branched arista laterals, bristles and hairs. FRYL (protein furry homolog-like), also known as AF4P12 (ALL1-fused gene from chromosome 4p11 protein) or KIAA0826, is a 3,013 amino acid protein belonging to the furry protein family. Existing as two alternatively spliced isoforms, FRYL is widely expressed, with high levels found in colon, placenta, brain and cells of lymphoid origin. FRYL plays a role in the maintenance of polarized cell extension integrity during morphogenesis and may act as a transcriptional activator. FRYL also participates in the patterning of sensory neuron dendritic fields and may regulate the actin cytoskeleton.

REFERENCES

1. Kabani, M., et al. 2000. A highly representative two-hybrid genomic library for the yeast *Yarrowia lipolytica*. *Gene* 241: 309-315.
2. Cong, J., et al. 2001. The furry gene of *Drosophila* is important for maintaining the integrity of cellular extensions during morphogenesis. *Development* 128: 2793-2802.
3. Hirata, D., et al. 2002. Fission yeast Mor2/Cps12, a protein similar to *Drosophila* Furry, is essential for cell morphogenesis and its mutation induces Wee1-dependent G₂ delay. *EMBO J.* 21: 4863-4874.
4. Emoto, K., et al. 2004. Control of dendritic branching and tiling by the Tricornered-kinase/Furry signaling pathway in *Drosophila* sensory neurons. *Cell* 119: 245-256.
5. Hayette, S., et al. 2005. AF4p12, a human homologue to the furry gene of *Drosophila*, as a novel MLL fusion partner. *Cancer Res.* 65: 6521-6525.
6. He, Y., et al. 2005. The tricornered Ser/Thr protein kinase is regulated by phosphorylation and interacts with furry during *Drosophila* wing hair development. *Mol. Biol. Cell* 16: 689-700.
7. Sait, S.N., et al. 2007. Translocation (4;11)(p12;q23) with rearrangement of FRYL and MLL in therapy-related acute myeloid leukemia. *Cancer Genet. Cytogenet.* 177: 143-146.
8. Yu, L.R., et al. 2007. Improved titanium dioxide enrichment of phosphopeptides from HeLa cells and high confident phosphopeptide identification by cross-validation of MS/MS and MS/MS/MS spectra. *J. Proteome Res.* 6: 4150-4162.
9. Robinson, B.W., et al. 2008. Prospective tracing of MLL-FRYL clone with low MEIS1 expression from emergence during neuroblastoma treatment to diagnosis of myelodysplastic syndrome. *Blood* 111: 3802-3812.

CHROMOSOMAL LOCATION

Genetic locus: FRYL (human) mapping to 4p11.

RESEARCH USE

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

PRODUCT

FRYL (h): 293T Lysate represents a lysate of human FRYL transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

FRYL (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive FRYL antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.