

Gene Section

Short Communication

MYEOV myeloma overexpressed (in a subset of t(11;14) positive multiple myelomas)

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Identity

Other names: OCIM

HGNC (Hugo): MYEOV

Location: 11q13

Local order: 350 kb centromeric of cyclin D1.

Note: Detected by application of the NIH/3T3 tumorigenicity assay. However MYEOV cDNA was not positive in NIH/3T3 assay.

DNA/RNA

Description

2 exons; 3.5 kb transcript represents unspliced mRNA.

Transcription

Main transcript 2.8 kb (broad band because of alternative splice products); minor transcript 3.5 kb; coding sequence 313 or 255 amino acids. In normal tissues hardly any expression detectable. High expression in a subset of multiple myeloma cell lines with a t(11;14)(q13;q32) and in breast tumors and esophageal squamous cell carcinomas with or without 11q13 amplification.

Protein

Description

313 or 255 amino acids; contains one RNP-1 motif and 6 regions that might function as a transmembrane domain. Leucine-rich stretch at C-terminal.

Expression

5' UTR inhibits efficient translation of the protein

Localisation

In endoplasmic reticulum and mitochondria.

Implicated in

t(11;14)(q13;q32)

Disease

Subset of multiple myeloma cell lines with t(11;14)(q13;q32).

Cytogenetics

Myeov overexpression due to juxtaposition to the 5' enhancer or the most telomeric 3' enhancer of the immunoglobulin heavy chain (IgH).

11q13 amplification and/or overexpression

Disease

Breast cancer; esophageal squamous cell carcinomas.

Prognosis

MYEOV DNA amplification correlated with estrogen and progesterone receptor-positive cancer, invasive lobular carcinoma type and axillary nodal involvement. In contrast to cyclin D1 amplification, no association with disease outcome could be found.

References

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