

Solid Tumour Section

Short Communication

t(2;19)(p23;p13.1)

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Clinics and pathology

Disease

Inflammatory myofibroblastic tumors.

Clinics

Rare soft tissue tumour found in children and young adults.

Pathology

Spindle cell proliferation with myofibroblastic differentiation and an inflammatory infiltrate.

Prognosis

Low malignant potential and good prognosis.

Genes involved and proteins

ALK

Location

2p23

Protein

1620 amino acids; 177 kDa; glycoprotein (200 kDa mature protein); membrane associated tyrosine kinase receptor.

TPM4 (tropomyosin fibroblast, non muscle type)

Location

19p13.1

Protein

248 amino acids, 29 kDa; coiled coil structure

Result of the chromosomal anomaly

Hybrid Gene

Description

5' TPM4 - 3' ALK

Fusion Protein

Description

783 amino acids. N-term TPM4 containing all but its 27 C-term amino acids, including the coiled coil domain, fused to the 562 C-term amino acids from ALK (i.e. the entire cytoplasmic portion of ALK with the tyrosine kinase domain).

Expression / Localisation

Predominantly cytoplasmic.

Oncogenesis

TPM4-ALK is constitutively activated.

References

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