

# **Gene Section**

## **Short Communication**

# LCP1 (lymphocyte cytosolic protein1)

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# Identity

Other names: L-Plastine

**Location:** 13q14

# **DNA/RNA**

# Description

Spans on a 90 kb genomic fragment; 16 exons, large first intron (20 kb).

### **Transcription**

3.7 kb mRNA; coding sequence from exon 2 to exon 16: 3500 bp.

# **Protein**

### Description

570 amino acids.

### **Expression**

Restricted to the hematopoietic cells (leukocytes); expression induced in all tumor cells of all tissues.

#### Localisation

Membrane.

#### Homology

Belongs to an actin-binding protein family (T-Plastin, Fimbrin, I-Plastin).

# Implicated in

# $t(3;13)(q27;q14)/NHL \rightarrow LCP1/BCL6$

#### Disease

Non Hodgkin follicular as well as Burkitt lymphomas.

#### Cytogenetics

t(3;13) is observed as a secondary anomaly.

#### **Hybrid/Mutated Gene**

Both 5' L-Plastin- 3' BCL6 and 5' BCL6 - 3' L-Plastin, leading to two fusion transcripts.

#### **Abnormal Protein**

No fusion protein, but promoter exchange between both partner genes.

# References

Lin CS, Aebersold RH, Kent SB, Varma M, Leavitt J. Molecular cloning and characterization of plastin, a human leukocyte protein expressed in transformed human fibroblasts. Mol Cell Biol 1988 Nov;8(11):4659-4668.

Lin CS, Park T, Chen ZP, Leavitt J. Human plastin genes. Comparative gene structure, chromosome location, and differential expression in normal and neoplastic cells. J Biol Chem 1993 Feb 5;268(4):2781-2792.

Park T, Chen ZP, Leavitt J. Activation of the leukocyte plastin gene occurs in most human cancer cells. Cancer Res 1994 Apr 1;54(7):1775-1781.

Prassler J, Stocker S, Marriott G, Heidecker M, Kellermann J, Gerisch G. Interaction of a Dictyostelium member of the plastin/fimbrin family with actin filaments and actin-myosin complexes. Mol Biol Cell 1997 Jan;8(1):83-95.

Lai JL, Michaux L, Dastugue N, Vasseur F, Daudignon A, Facon T, Bauters F, Zandecki M. Cytogenetics in multiple myeloma: a multicenter study of 24 patients with t(11;14)(q13;q32) or its variant. Cancer Genet Cytogenet 1998 Jul 15;104(2):133-8.

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