

## t(1;14)(p22;q32) in non Hodgkin's lymphoma (NHL)

### Clinics and Pathology

- Disease** the translocation is cytogenetically detectable in a minority of extranodal MALT lymphomas; irrespective of the presence of the 1;14 translocation, mutation or deletion of the BCL10 gene located at 1p22 can be detected by molecular genetic methods in 5-10% of extra-nodal MALT lymphomas, [follicle centre cell lymphoma](#) and [diffuse large B-cell lymphoma](#); among MALT lymphoma a preferential association was noted with high-grade histology
- Prognosis** in MALT lymphoma there may be an association with aggressive histology and antibiotic-unresponsive forms

### Cytogenetics

- Cytogenetics** the translocation is readily detectable by conventional karyotyping
- Morphological**

### Genes involved and Proteins

- Note** the breakpoints on chromosome 1p22 are located upstream of the promoter of the BCL10 gene, which shows inactivating mutations or deletions

**Gene Name** BCL10

**Location** 1p22

**Protein** 322 amino acids; contains a caspase recruitment domain; role in the apoptosis

**Gene Name** [IgH](#)

**Location** 14q32

### External links

- Other database** [t\(1;14\)\(p22;q32\) in non Hodgkin's lymphoma \(NHL\)](#) [Mitelman database \(CGAP - NCBI\)](#)
- Other database** [t\(1;14\)\(p22;q32\) in non Hodgkin's lymphoma \(NHL\)](#) [CancerChromosomes \(NCBI\)](#)

### Bibliography

**Cytogenetic study of B-cell lymphoma of muca-associated lymphoid tissue.**  
Wotherspoon AC, Pan L, Diss TC, Isacson PG.  
Cancer Genet Cytogenet 1991; 58: 35-38.

**BCL10 is involved in t(1;14)(p22;q32) of MALT B cell lymphoma and mutated in multiple tumor types.**

Willis TG, Jadayel DM, Du MQ, Peng H, Perry AR, Abdul-Rauf M, Price H, Karran L, Majekodumni O, Wlodarska I, Pan L, Crook T, Hamoudi R, Isaacson PG, Dyer MJS.  
Cell 1999; 96: 35-45.

**Inactivating mutations and overexpression of BCL10, a caspase recruitment domain containing gene, in MALT lymphoma with t(14)(p22;q32).**

Zhang Q, Siebert R, Yan M, Hinzmann B, Cui X, Xue L, Rakestraw KM, Naeve CW, Beckmann G, Weisenburger DD, Sanger WG, Nowotny H, Vesely M, Callet-Bauchu E, Salles G, Dixit VM, Rosenthal A, Schlegelberger B, Morris SW.  
Nat Genet 1999; 22: 63-68.

**BCL10 gene mutation in lymphoma.**

Du MQ, Peng W, Liu H, Hamoudi RA, Diss TC, Willis TJ, Ye H, Dogan H, Wotherspoon AC, Dyer MJS, Isaacson PG.  
Blood 2000; 95: 3885-3890.

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