

## Fluorescence in-situ Hybridization (FISH)

### t (8;14) or LSI CMYC / IGH Translocation Assay

**Specimen** :

**Clinical Indication** :

**Result** :

:

**Interpretation** :

Interphase nuclei analyzed	Normal nuclei	Abnormal nuclei
	2 Orange 2 Green signals	1 Orange 1 Green 2 Yellow signals
200		

Cut off for the normal individual is 3%

## PHOTO

**Method:** FISH analysis performed on 200 Interphase nuclei.

**Probe :** LSI CMYC (8q24) Spectrum Orange / LSI IGH (14q32) Spectrum Green.

**Comments:** The CMYC proto-oncogene (v-myc avian myelocytomatosis viral oncogene homolog, a.k.a. MYC) encodes a transcription factor essential for cell growth and proliferation and is broadly implicated in tumorigenesis. Translocations involving the CMYC gene are considered to be cytogenetic hallmarks for Burkitt Lymphoma (BL) but are also found in other types of lymphomas. The most frequent translocation involving the CMYC gene region is t(8;14) (q24;q32) can be found in approx. 80% of the BL cases and juxtaposes the CMYC gene next to the IgH (immunoglobulin heavy chain) locus. The identification of CMYC specific rearrangements is a critical part of the diagnostic work-up and management of patients, identifying those who will benefit from the intensive therapeutic regimens used to treat BL.