

[High expression of LMO2 in Hodgkin, Burkitt and germinal center diffuse large B cell lymphomas.](#)

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Source

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Abstract

BACKGROUND AND AIM:

The LMO2 gene encodes a transcription factor that regulates key events in erythropoiesis, angiogenesis, and embryogenesis and is highly expressed at the most immature stages of lymphopoiesis. Its implication in Hodgkin lymphoma (HL), Burkitt lymphoma (BL) and diffuse large B cell lymphoma (DLBCL) is limited in the literature.

MATERIAL AND METHODS:

An immunohistochemical study was performed on 68 lymphoma specimens showing different types including Hodgkin lymphoma (23), Burkitt lymphoma (10) and diffuse large B cell lymphoma (35). Also, seven specimens of the reactive nodal tissue were included as control. A monoclonal anti-human antibody has been used to detect LMO2.

RESULTS:

LMO2 was detected in all cases of HL (100%), in nine cases of BL (90%) and in all cases of DLBCL of germinal center (GC) subtype 20/35 (57.1%) but is completely negative in non-germinal center (NGC) DLBCL. In normal control of reactive nodes, LMO2 was expressed in germinal center area but not expressed in other areas including mantle, marginal, or T cell zones. In DLBCL; there was no statistically significant relation between LMO2 positive cases and the studied clinicopathological parameters including patient's age, sex and tumor site, stage and histological subtype. On the other hand, it was statistically significant regarding immunophenotyping of GC versus NGC.

CONCLUSIONS:

LMO2 expression is a special feature of GC DLBCL which can be used as a diagnostic marker and therapeutic target. Further studies regarding its prognostic role in patients are recommended.