



# CLL Probes

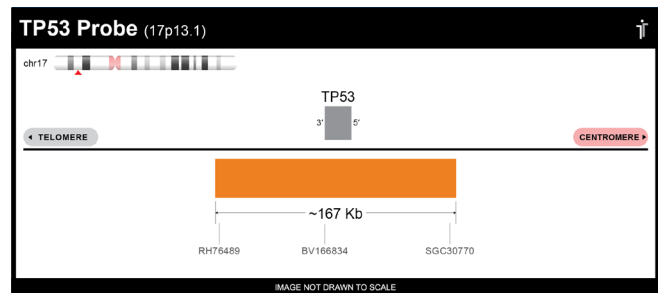
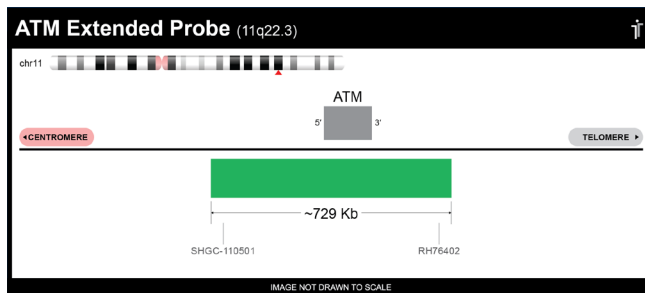
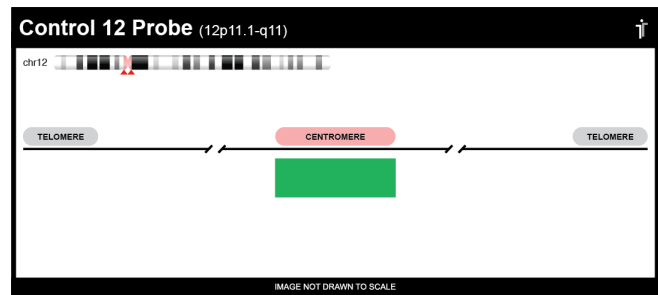
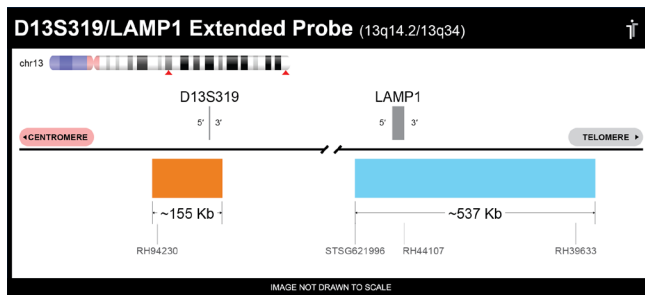
## CHRONIC LYMPHOCYTIC LEUKEMIA RESEARCH

Chronic lymphocytic leukemia (CLL) is the most common adult leukemia.<sup>1</sup> Chromosome 11q deletions can be found in about 10% of early stage and 25% of advanced CLL.<sup>2,3</sup> The ATM gene, which encodes a DNA damage response kinase, is found in the 11q23 region often lost in these deletions. TP53 is a well-established tumor suppressor that helps regulate DNA damage response. Abnormalities in the gene, most often deletions, occur in around 10-15% of CLL patients.<sup>4</sup> More than 80% of patients with 17p deletion also carry TP53 mutations in the remaining allele.<sup>4</sup> Deletions in the long arm of chromosome 13 are among the most common genetic aberrations in CLL.<sup>5</sup> Commonly deleted regions have been shown to house the D13S319 locus (lost in 10-29% of cases) and the LAMP1 gene at 13q34 (indicated by some studies to be deleted in up to 4% of patients).<sup>5,6</sup> Trisomy of chromosome 12 can be found in around 20% of CLL cases.<sup>7</sup>

### Interested in CLL?

Empire Genomics' CLL FISH Panel detects genetic aberrations frequently found in the disease. For more information, and to browse our complete catalog of disease probes, please visit our website.

Probes	Location	Dye Color	Catalog Number
ATM/TP53 Extended FISH Probe	11q22.3/17p13.1		ATM-TP53-EXT-20-GROR
D13S319/LAMP1/CON12 FISH Probe	13q14.2/13q34/12p11.1-q11		D13S319-LAMP1-CHR12-20-ORAQGR



1. Jemal A, Siegel R, Ward E, Murray T, Xu J, Thun MJ. Cancer statistics, 2007. *CA Cancer J Clin.* 2007; 57: 43-66 2. Zenz T, Mertens D, Kuppers R, et al. From pathogenesis to treatment of chronic lymphocytic leukaemia. *Nat Rev Cancer.* 2010; 10: 37-50 3. Quesada V, Conde L, Villamor N, et al. *Nat Genet.* 2011; 44: 47-52. 4. Pospisilova, S., Gonzalez, D., Malcikova, J. et al. *Leukemia.* 2004; 26: 1458-146 5. Alessandro Gozzetti, Rosaria Crupi & Daniela Tozzuoli. *Hematology,* 2004; 9:1: 11-15 6. Armand B. Glassman, Kimberly J. Hayes. *Cancer Genetics and Cytogenetics.* 2005; 158: 88-91 7. Lynne V. Abruzzo, Carmen D. Herling, George A. Calin, Christopher Oakes, Lynn L. Barron, Haley E. Banks, Vikram Katju, Michael J. Keating, Kevin R. Coombes. *Haematologica* 2018;103(12):2069-2078

For In Vitro Use Only | For Research Use Only | Not For Diagnostic Use

