BAX/BCL-2 ratio measured by flow cytometry is a crucial prognosticator in chronic lymphocytic leukemia and could be used for monitoring the modern anti-bcl-2 therapy with ABT-199.

BAX/BCL-2 ratio cut off: 1.50

- BAX/BCL-2 ≥ 1.50 in 263 patients (52%)
  - low Rai stage
  - lymphocyte doubling time >12 months
  - beta-2 microglobulin <2.2 mg/dl, soluble CD23<70 U/ml
  - low risk cytogenetic profile (p<0.0001)

- BAX/BCL-2 < 1.50 in 239 patients (48%)
  - unmutated IGHV (p<0.0001)
  - mutated NOTCH1 (p<0.0001)
  - mutated TP53 (p=0.00007)
  - shorter progression free survival and overall survival

BAX/BCL-2 was an independent prognostic factor in multivariate analysis of progression free survival and overall survival.

Del Principe et al., Haematologica, 2015