

Figure S1. BCL-2 family mRNA expression in lymphocytes isolated from healthy donors
 (A) mRNA levels of BCL-2 family members determined by quantitative RT-PCR normalized to those of the first healthy donor show similar expression for each *BCL-2* family transcript. (B) Bcl-2 family members have different basal levels normalized to β -ACTIN. Note the logarithmic scale used to reveal the large differences in the expression levels.

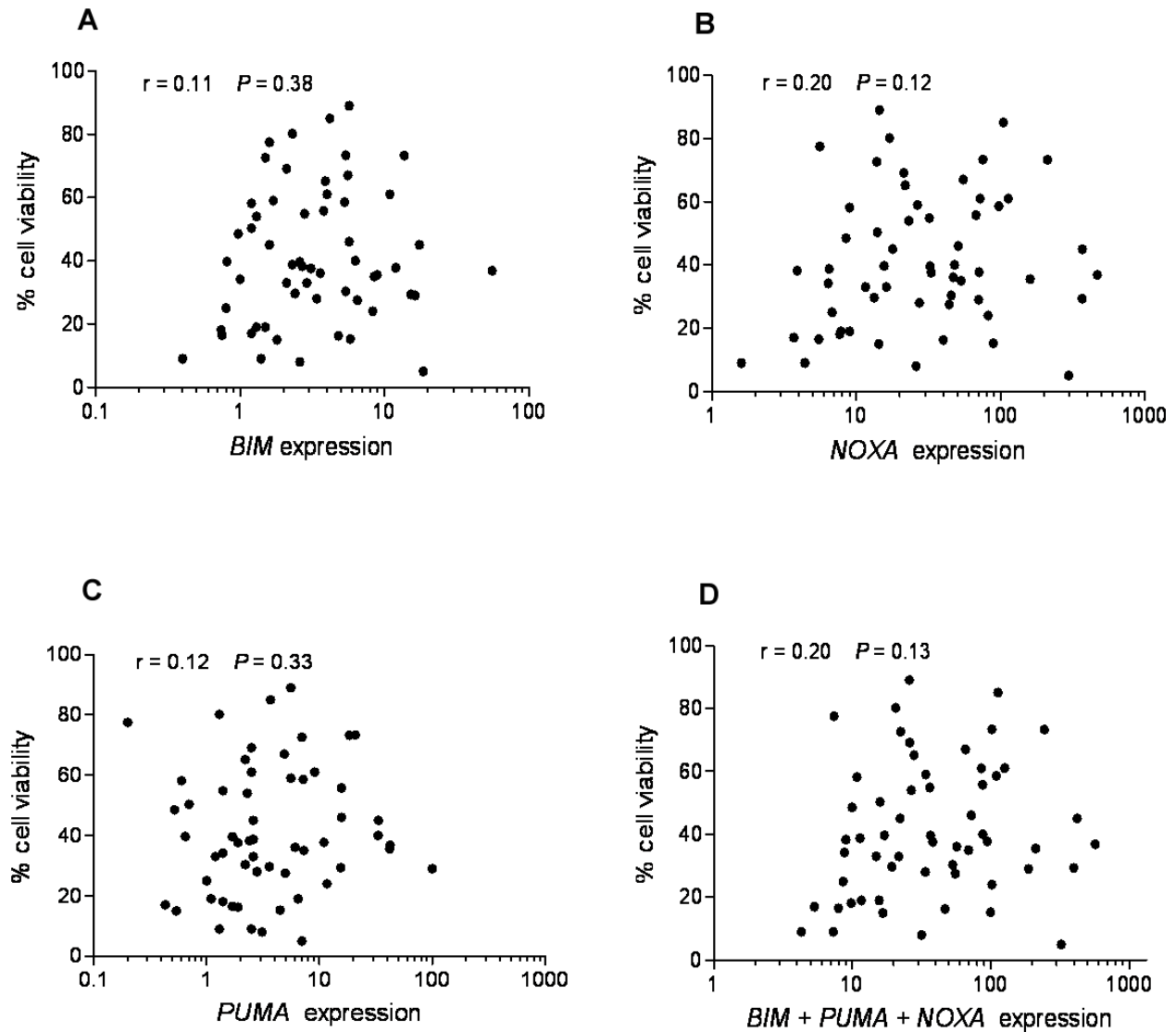


Figure S2. Lack of linear correlation between RNA expressions of BH3-only Bcl-2 family members, individually or combined, and CLL response to ABT-737

The expression value for each or the combined BH3-only mRNAs were plotted against cell viability after ABT-737 treatment. RNA expression levels were normalized to those found in lymphocytes isolated from six healthy donors for: (A) *BIM*, (B) *NOXA*, (C) *PUMA*, and (D) *BIM* + *NOXA* + *PUMA* expression. Spearman correlation (r) and P -values are shown.

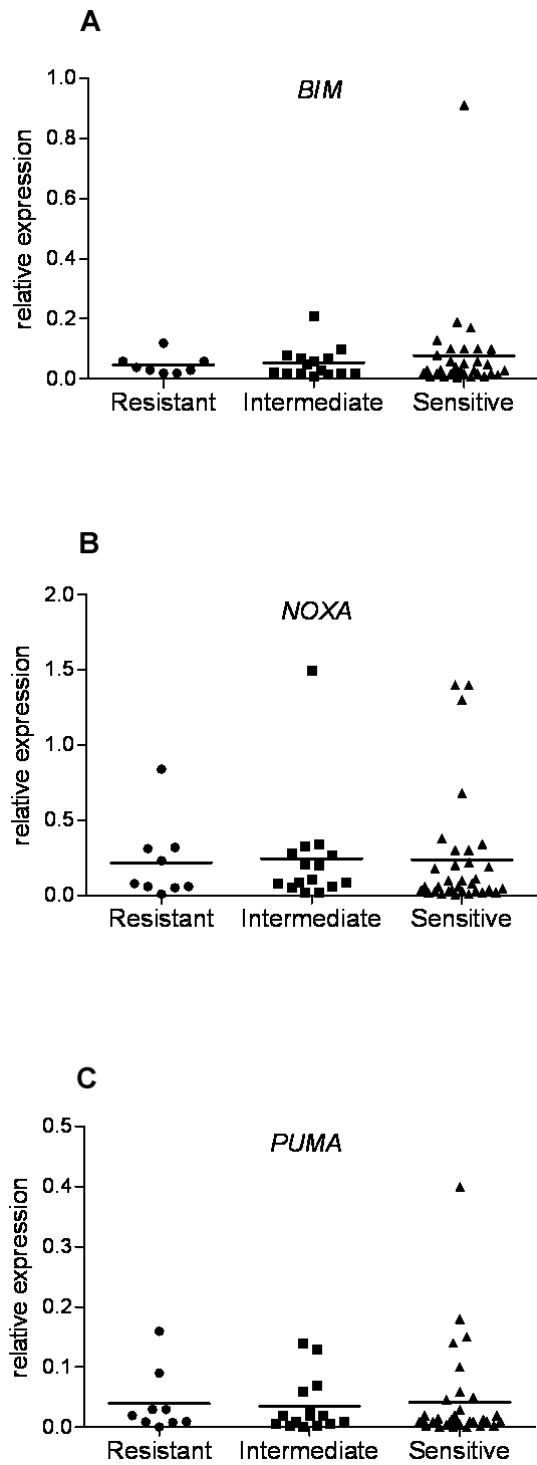


Figure S3. BH3-only transcripts in the sensitive, intermediate, and resistant CLL groups
 Expression of BH3-only mRNAs determined by quantitative RT-PCR were normalized to β -actin for all CLL patient samples. (A) *BIM*, (B) *NOXA*, and (C) *PUMA* expression.

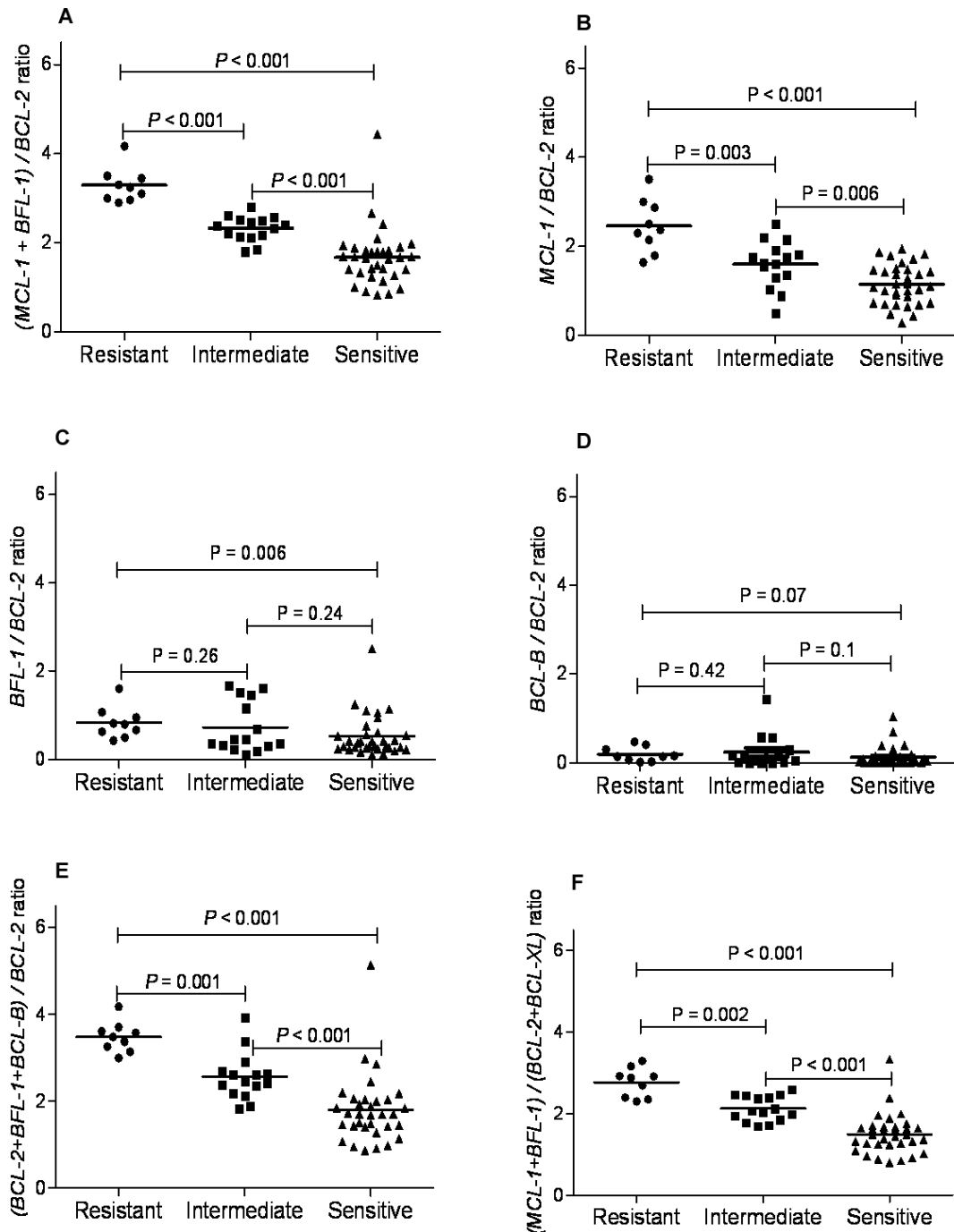


Figure S4. The relative ratio of $(MCL-1 + BFL-1)/BCL-2$ represents the most informative predictive marker for the ABT-737 sensitivity

Relative expression values for: (A) $(MCL-1 + BFL-1)/BCL-2$, (B) $MCL-1/BCL-2$, (C) $BFL-1/BCL-2$, (D) $Bcl-B/Bcl-2$, (E) $(Mcl-1 + Bfl-1 + Bcl-b)/Bcl-2$, and (F) $(Mcl-1 + Bfl-1)/(Bcl-2 + Bcl-xl)$, $(Mcl-1 + Bfl-1)/Bcl-2$ are the most significant among the sensitive, intermediate, and resistant groups. P-values are indicated for comparison between groups.

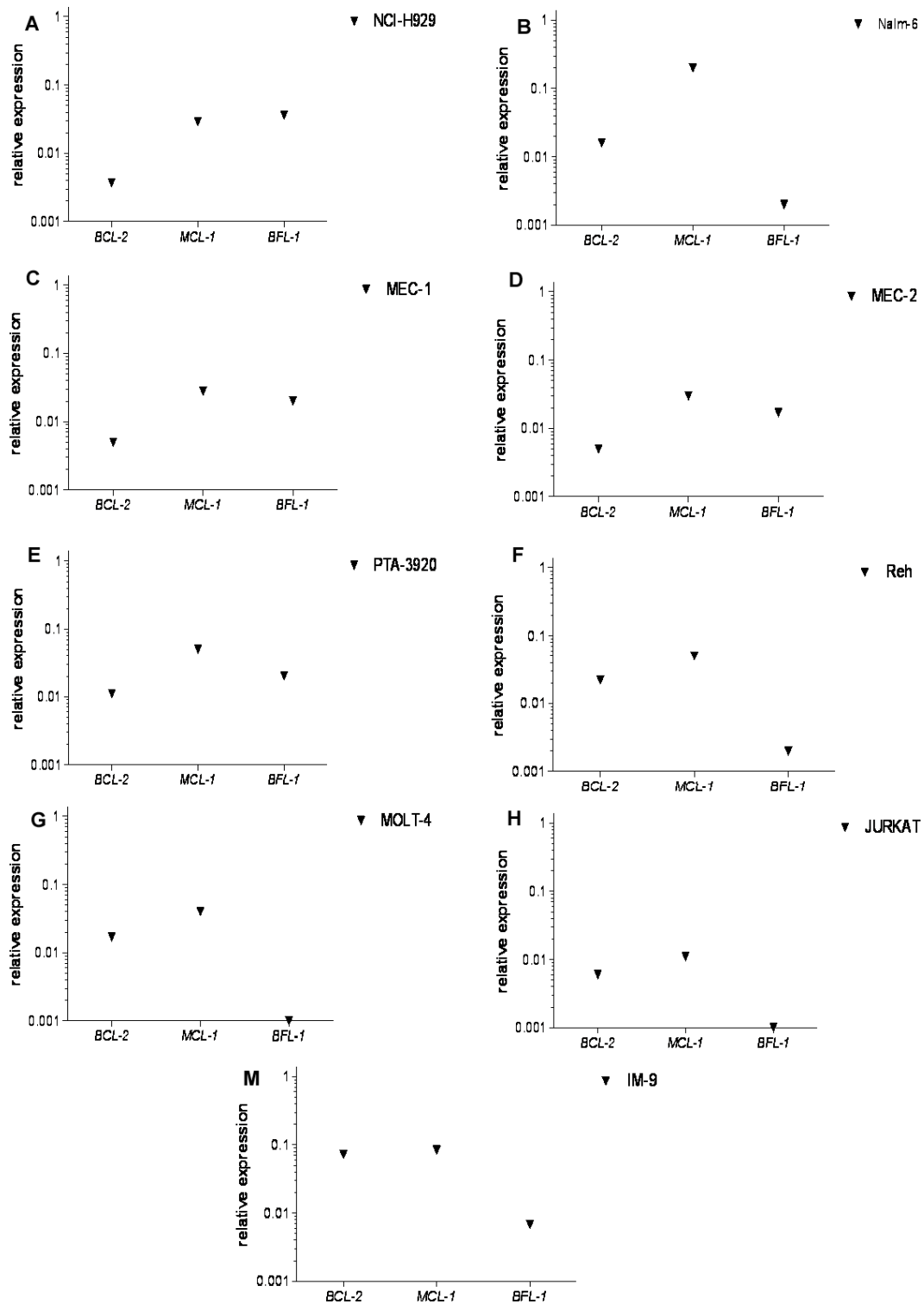


Figure S5. Relative expression of *BCL-2*, *MCL-1* and *BFL-1* in a panel of leukemic cell lines *BCL-2*, *MCL-1*, and *BFL-1* mRNA expression relative to β -ACTIN in (A) NCI-H929, (B) Nalm-6, (C) Mec-1, (D) Mec-2, (E) PTA-3920, (F) Reh, (G) Molt-4, (H) Jurkat, and (I) IM-9 cells.