

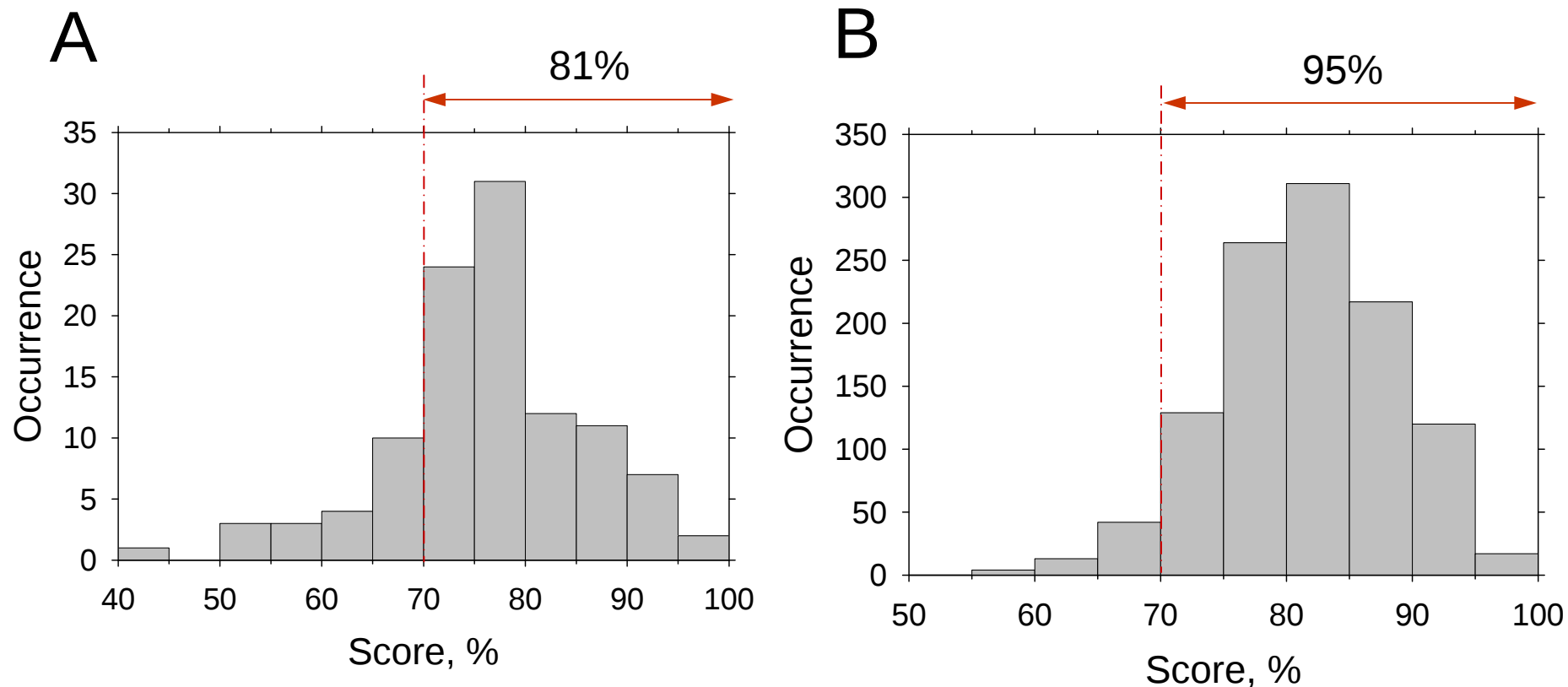


Figure S3 PWM-20 score distributions for p53 REs and *in vivo* binding sites

(A) Distribution of PWM-20 scores for p53 REs. Out of the 157 REs published by Riley *et al.* [6], 44 do not have canonical CWNG:CNWG motifs in the centers of the decamers, and two REs have spacer $S > 14$ bp; these 46 REs were not assigned any score (see Methods). The histogram shows distribution of the PWM-20 scores for the remaining 108 REs.

Note that 81% of these REs have PWM-20 scores higher than 70% cutoff (shown by red line).

(B) Distribution of PWM-20 scores for the p53 BSs detected *in vivo* by Smeenk *et al.* [8]. Using chromatin immunoprecipitation, the authors localized 1281 p53 BSs, 1117 of which are close to the p53 consensus and satisfy the criteria presented in Methods.

The PWM-20 scores were calculated for these sites, and in 95% of them (1058 of 1117), the score exceeded 70% cutoff.