

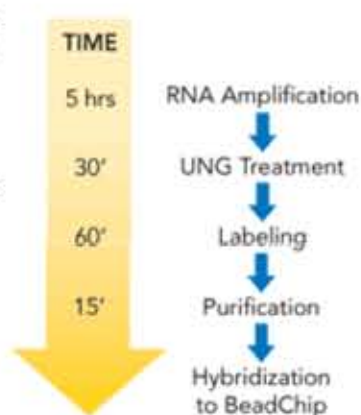


## Encore™ BiotinIL Module

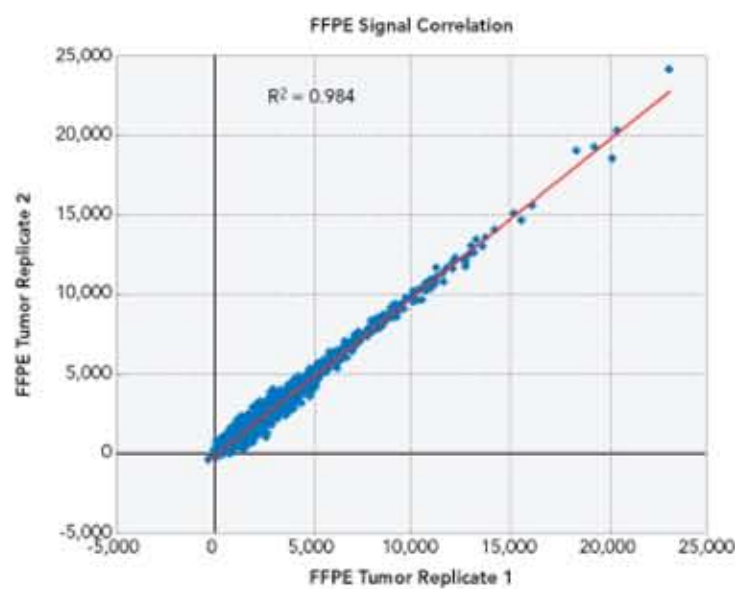
The Encore BiotinIL Module is designed to provide a rapid, simple and easily automatable approach for labeling of cDNA for analysis on the Illumina Genome-Wide Expression BeadChips. It is ideally suited for use with the Ovation® RNA Amplification Systems by NuGEN® to enable the analysis of small and compromised RNA samples typically obtained from clinical specimens such as whole blood, LCM, sorted cells, fine needle biopsies and FFPE samples

Based on your sample characteristics, choose one of the Ovation RNA Amplification products such as the WT-Ovation™ FFPE V2, Ovation PicoSL WTA System, Ovation Pico WTA System, WT-Ovation One-Direct, Ovation RNA Amplification System V2, or the Ovation Whole Blood System. Amplify RNA to obtain 2 - 4 µg of amplified cDNA. The amplified material can then be directly used as input to the Encore BiotinIL Module and the labeled target can be hybridized to the Illumina Expression BeadChips.

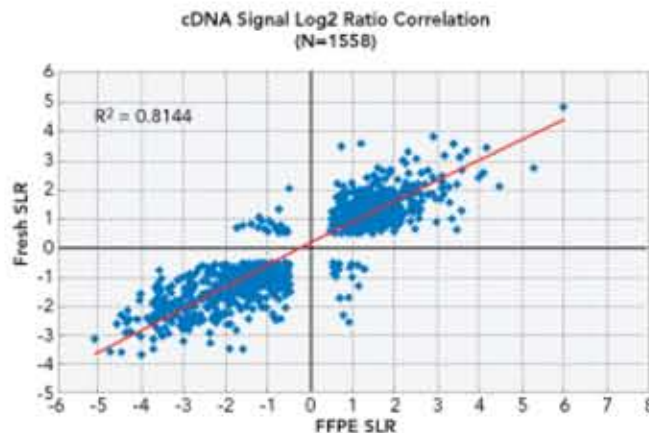
The Encore BiotinIL Module takes advantage of the uracil bases incorporated during the SPIA® amplification step as a part of the Ovation RNA Amplification Systems. The uracil bases are then specifically cleaved with the addition of the uracil-DNA glycosylase (UNG) in the Encore BiotinIL Module followed by chemical labeling with biotin at the cleavage sites. The entire protocol takes less than two hours to complete prior to array hybridization.



The high level of reproducibility of the entire amplification and labeling process is illustrated using 50 ng of total RNA isolated from FFPE lung tumors and controls in comparison to matched fresh frozen samples. The WT-Ovation FFPE System was used to amplify cDNA and labeled with the Encore BiotinIL Module. The targets were hybridized to Illumina Human Ref-8 v2 Expression BeadChips. Pairwise Pearson correlations among four independently amplified and labeled replicates for an FFPE sample as well as the matched fresh frozen sample were calculated. The average R2 of all pairwise comparisons was 0.99 for fresh frozen and 0.98 for FFPE samples. An example of the linear array signal scatter plots for the FFPE sample is shown on the left.

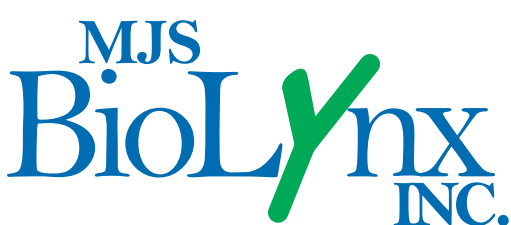


The accuracy of the gene expression data is demonstrated by the high degree of correlation of signal log ratio (SLR) of  $R^2 = 0.81$  for a set of 1,558 genes between targets derived from fresh frozen samples and those derived from FFPE samples.



The Encore BiotinIL Module, together with the Ovation RNA Amplification Systems, provides a complete sample preparation solution for analyzing a diverse range of input samples on Illumina Expression BeadChips.

*For further information, please contact <sup>MJS</sup> BioLynx Inc. at 1-888-593-5969 or email [tech@biolynx.ca](mailto:tech@biolynx.ca).*



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