



Figure S1. Optimal formamide concentration and probe length for detecting insertions and deletions at exon-exon junctions. Shown are results from probes representing RB1 'pseudo-junctions' with inserted and deleted nucleotides, simulating deletions and insertions, respectively, in the mRNA. Plots show summary data at different formamide concentrations and probe lengths for probes placed at the center of each pseudo-junction. Left side: each line plots the average intensity of the 26 pseudo-junction probes (one for each known exon-exon pair) versus the size the insert (A) or deletion (B) at one probe length and formamide concentration. Right side: ratio of average probe intensity with no insertion or deletion to the average probe intensity containing a 3 nt insertion (C) or 3 nt deletion (D) at each formamide concentration and probe length. That is, each value in the grid represents the ratio between the intensities at 0 nt and 3 nt for one profile in the plots on the left side. The optimal profile shows a high intensity for the perfect match, with no insertions or deletions, and quickly falls to lower intensities as insertions and deletions are added. The bold blue line shows the values for probe length 30 nt at 35% formamide.