(a) A series of samples is spiked with increasing amounts of a competitor RNA that will produce a PCR product that is different in size to the prospective target fragment. (b) The competitor RNA 'competes' with the target RNA for the primers and other resources in the reaction during PCR. (c) When analysed on an electrophoresis gel, the products can be distinguished on the basis ofsize. In this case the equal band intensities in lane 3 (boxed) enable the amount of target mRNA in the original sample to be determined, as this is the point where the competitor and target were present at equal concentrations at the start of the PCR process.