

Appendix 1: RNAi

RNAi is a naturally occurring process in which double stranded RNAs (dsRNAs) are processed into small (19-25 bp) interfering RNAs (siRNAs) and then incorporated into a silencing complex that selects and degrades homologous mRNA¹. The use of exogenous siRNA delivery into mammalian cells is rather limited though, since the effects of siRNAs are transient and restricted by the rate of cell division^{2,3}. However, more permanent knockdown can be achieved by expressing siRNA precursors, such as short hairpin RNAs (shRNAs), in lentiviral vector (LV) constructs^{2,4}. These shRNAs are processed and cleaved by the host's cellular machinery into functional siRNAs^{2,5}.

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