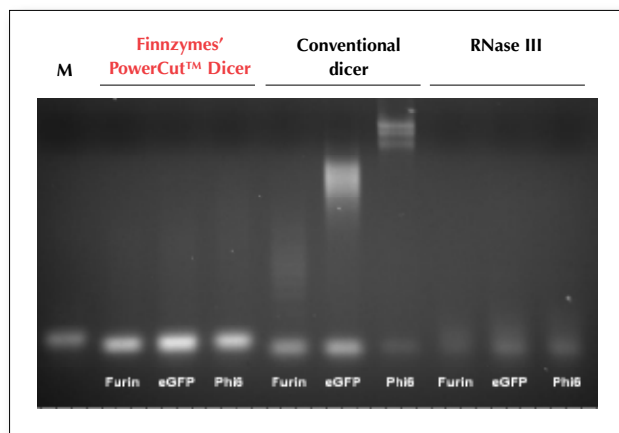


PowerCut™ Dicer

PowerCut™ Dicer – 100 % efficiency

Finnzymes' novel PowerCut™ Dicer produces a pool of 25–27 nucleotide-long siRNA molecules from any dsRNA. This efficient endoribonuclease originating from *Giardia intestinalis* outperforms all other siRNA producing enzymes by cleaving the substrate with 100 % efficiency yet leaving the resulting siRNAs intact. The high quality siRNA produced is ideal for gene silencing studies, for example. Pooled siRNAs are also preferred over synthetic siRNA oligos if the target sequence cannot be specified well enough or when the sequence is prone to variations like in the case of viral targets.

PowerCut Dicer combined with Finnzymes' Replicator™ RNAi Kit is a powerful combination for generating high amounts of siRNA from *in vitro*-produced dsRNA.



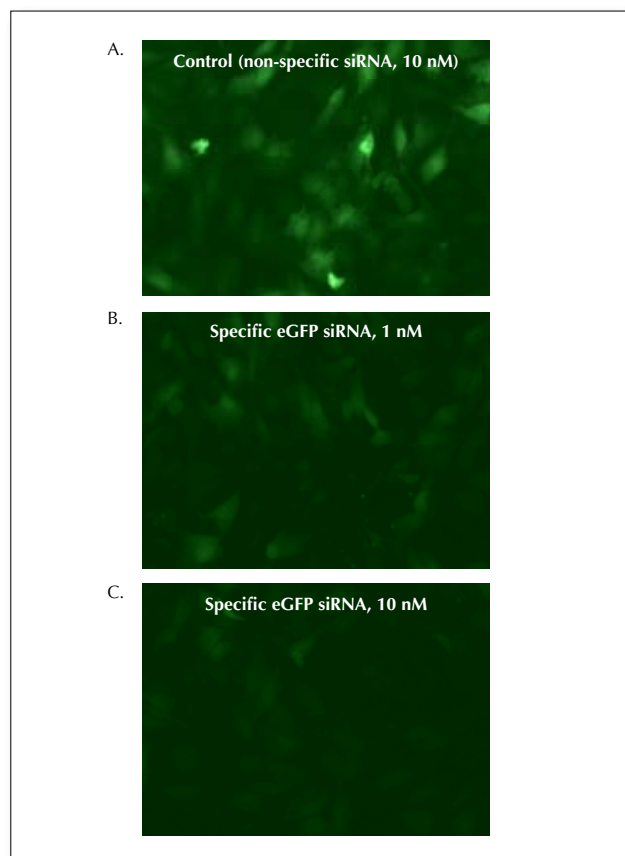
siRNAs with 100 % efficiency without overdigestion. Three different dsRNA substrates (Furin, eGFP and Phi6 dsRNA) were cleaved using Finnzymes' PowerCut Dicer and two other commercial enzymes used for producing siRNAs (from major suppliers). Reactions were performed according to the manufacturers' instructions. PowerCut Dicer cleaved all three substrates with 100 % efficiency. Conventional dicer only gave partial digestion, whereas RNase III enzyme also digested part of the produced siRNAs resulting in lower yield. M denotes a 27-bp RNA marker.

Ordering information

PowerCut™ Dicer	
F-602S	60 U
F-602L	300 U
Related products	
F-610	Replicator™ RNAi Kit

Advantages

- 100 % cleavage efficiency gives maximal siRNA yields
- No overdigestion of siRNAs
- Produces 25–27 nucleotide-long siRNAs with a strong silencing function
- Free of contaminating RNase, endo- and exonuclease activities



Efficient silencing in HeLa cells. The HeLa-eGFP cell line containing a constitutively expressed plasmid pEGFP-C1 was transfected with non-specific control siRNAs (Phi6 S) and specific eGFP siRNAs produced with Finnzymes' PowerCut Dicer. The results show that specific siRNAs efficiently silence the expression of eGFP (B and C), whereas the non-specific control siRNA has no effect (A). The eGFP siRNAs were cleaved from a dsRNA substrate produced with Finnzymes' Replicator RNAi Kit.