

Accelerating gene research with reliable, custom tools

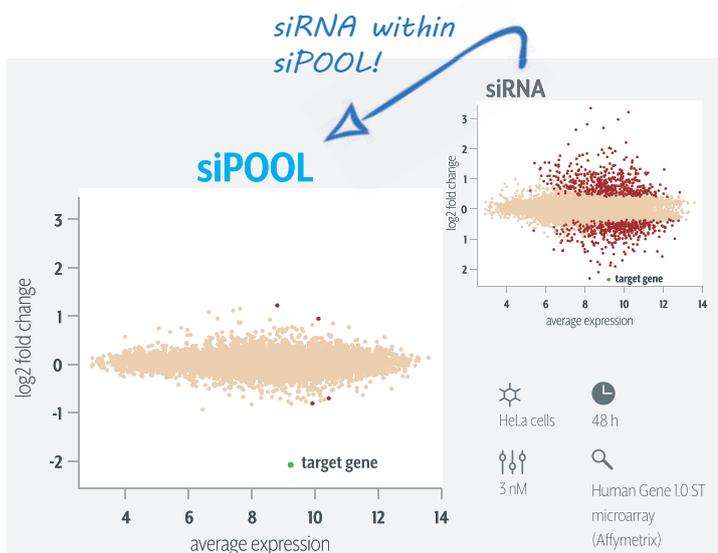


A major factor for confounding experimental results are non-specific reagents. siTOOLS Biotech creates reliable, custom genetic tools with exceptional targeting specificity, helping researchers save time and costs.

Founded by RNA experts in 2013, siTOOLS' products achieve unrivalled specificity through a unique combination of high complexity oligo pooling, proprietary design algorithms, and quality production.

With the first siRNA validation-inclusive guarantee and additional custom service offerings, siTOOLS is a favoured research partner for accelerating drug development and scientific discoveries.

siPOOL™: Reliable gene silencing with defined complexity



Transcriptome-wide expression studies showed siPOOL reduces off-target gene (•) deregulation while maintaining on-target gene (•) knock-down₁

siPOOLS are the market's only RNAi reagent that uses high complexity siRNA pooling (30 siRNAs) and optimal design to increase specificity and efficiency of gene silencing.

siPOOLS have been cited in > 38 publications and are regularly used by pharmaceutical companies and drug discovery units (e.g. DKFZ, CRUK) as a target discovery & validation tool.

Associated Products:

[siPOOL cancer toolbox](#)

[siPOOL human kinase library](#)

[siPOOL rescue sequences/constructs](#)

Publications:

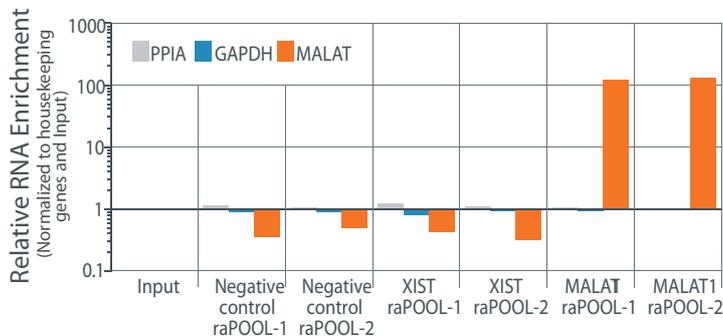
1. Hannus, M., et al. (2014) siPools: highly complex but accurately defined siRNA pools eliminate off-target effects. *Nucleic Acids Res* 42(12): 8049–8061.

Benefits

- 01 **Reliable phenotypes.** Higher specificity and efficiency of gene targeting increases reliability of results.
- 02 **Simple and fast.** Compatible with many transfection methods with results in days.
- 03 **Detailed, custom design with latest annotations.** Maximal transcript coverage while avoiding paralogues. Selectively target isoforms or species orthologues.
- 04 **Validation-inclusive guarantee.** Receive a free *validated* siPOOL if knock-down is less than 70%.
- 05 **Low risk of contaminants.** HPLC/PAGE-purified for highest achievable purity.
- 06 **Multi-gene targeting.** Effective at low concentrations, siPOOLS can be combined to study genetic interactions.

raPOOL™ : Robust RNA pulldowns at affordable cost

100-fold RNA enrichment!



raPOOLS specifically enriched lncRNA, MALAT1, at 100pmol raPOOL/ml HeLa S3 lysate after 4h probe hybridization at 37°C

We apply the power of defined, high complexity towards our new biochemistry tool, raPOOLS.

Containing 30 optimally-designed biotinylated single-stranded DNA probes, raPOOLS are well-suited for specific and robust enrichment of long non-coding RNAs and their associated proteins/nucleic acids.

Publication:

Nötzold, L. et al. (2017) *The long non-coding RNA LINC00152 is essential for cell cycle progression through mitosis in HeLa cells.* *Scientific Reports* 7, 2265

Benefits

- 01 Specific, robust RNA pulldown.** Greater RNA coverage afforded by raPOOLS increase robustness and efficiency of pulldowns.
- 02 Detailed, custom design with latest annotations.** Designed to avoid off-targets. Target custom sequences/special species.
- 03 Best deal for biotinylated probes.** Affordable pricing and generous amounts provide exceptional value.
- 04 Free technical consultation.** RNA affinity purification protocol provided with free, responsive technical advice.

Additional Services

Leveraging expertise in bioinformatics, molecular biology and RNAi screening, we provide a range of services to support customer needs.

Experiment-based (with siPOOLS):

Real-time quantitative PCR assays to determine:

- Dose response (7 concentrations)
- Transfection conditions for difficult cells
- Gene/isoform/species cross-reactivity

RNAi screening (plate arraying, assay development, image-based screens)

Protein quantitation (immunoblot)

For other custom projects, please enquire

Bioinformatics-based:

Oligo design (siRNA/CRISPR gRNA/DNA probes, including libraries)

Phenovault - RNAi/CRISPR screening database & analysis suite for:

- siRNA evaluation (obtain off-target gene candidates)
- target gene function evaluation
- RNAi screening data analysis with seed-based focus to identify false positives and uncover novel hits