raPOOLs

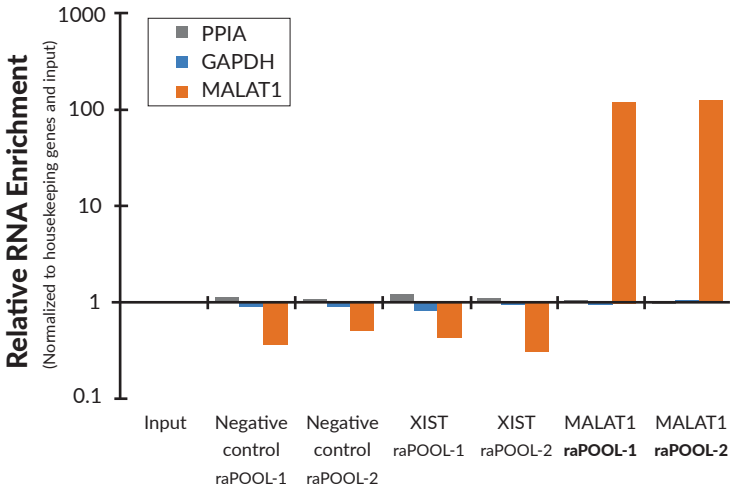
Robust & Targeted RNA Capture

RNA antisense pools (raPOOLs) provide **robust and specific isolation** of targeted RNA from cells.

Complex pooling of optimally designed biotinylated DNA probes maximizes coverage of targeted RNA, enabling robust enrichment.

raPOOLs enable identification and characterization of interacting nucleic acids and proteins of targeted RNA.

Targeted robust RNA Capture with raPOOLs



lysates of HeLa S3 cells were incubated with two different raPOOLs against: 37 °C, 4 h

- human MALAT1 (targeted RNA)
- human XIST (control)
- *E. coli* LacZ (neg. control)

RNA quantified by real-time qPCR of:

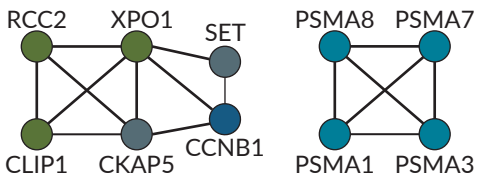
- human MALAT1 (targeted RNA)
- PPIA / GAPDH (controls)

Both raPOOLs against MALAT1 resulted in a **100-fold enrichment of target RNA**.

→ raPOOL capture leads to reproducible pulldowns of target RNA.

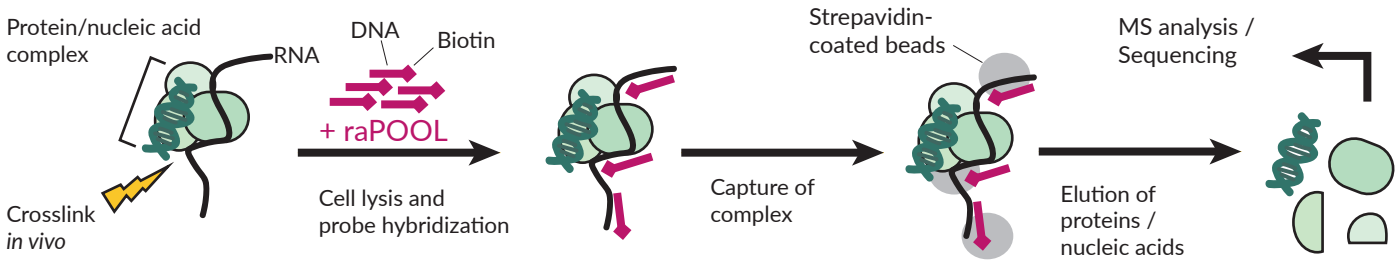
raPOOLs unveil interactome and lncRNA function

raPOOLs enable pulldown and analysis of proteins interacting with long non-coding RNA, LINC00152.



Pulldown of LINC00152 and its associated proteins revealed two networks in mitotic progression: Microtuble cytoskeleton organization, and Ubiquitin- protein ligase activity, Nötzold et al., Scientific Reports, 2017.

raPOOL Workflow



Applications

Large scale isolation of RNAs from cell lysates

- long non-coding RNAs
- premature / messenger RNAs

Co-isolation of interactome to study

- associated proteins / nucleic acids

raPOOL Benefits

- ✓ highly efficient and specific
- ✓ Affordable solution for customized biotinylated probes
- ✓ customizable for every RNA
- ✓ **hundred-fold enrichment** of target RNA
- ✓ HPLC-purified - low risk of contaminants
- ✓ reproducible and consistent level of RNA enrichment

- Available formats:

Probes alone with nuclease-free water	2 nmol (20 rxn)	5 nmol (50 rxn)	10 nmol (10 rxn)

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