

| LINCS standardized siRNA and shRNA information | | | | | | | | | | Notes |
|--|---------------------------|----------------|--|--|---|--------------------------------------|----------------------------|--|------------------------------------|-------|
| Unique ID | LINCS Field Name | Related to | Description | Importance (1: essential; 2: desirable / recommend; 3: optional) | Comments | Ontologies / references considered | Suggested terminology | Link to ontology / reference | Additional Notes (for development) | |
| RN:1 | RN_Name | canonical RNAi | The primary name of the siRNA or shRNA as chosen by LINCS | 1 | Should be descriptive and correspond to existing siRNA or shRNA names as much as possible; batch independent name | | | | | |
| RN:2 | RN_LINCS_ID | canonical RNAi | Unique LINCS internal identifier | 1 | LINCS internal ID; this is a batch independent ID; canonical siRNA or shRNA ID | | | | | |
| RN:3 | RN_Probe_ID | canonical RNAi | ID of the siRNA or shRNA as listed in NCBI Probe database | 1, if available | | NCBI/Probe | Probe_ID | http://www.ncbi.nlm.nih.gov/Probe/ | | |
| RN:4 | RN_Probe_Title | canonical RNAi | Name of the siRNA or shRNA as listed in NCBI Probe database | 1, if available | | NCBI/Probe | | http://www.ncbi.nlm.nih.gov/Probe/ | | |
| RN:5 | RN_Probe_Type | canonical RNAi | A controlled vocabulary specifying whether the probe is an siRNA, esiRNA, or shRNA | 1 | | BAO | siRNA; esiRNA; shRNA | http://bioprocess.org/ | | |
| RN:6 | RN_Vendor_name | batch | Vendor or lab that supplied the reagent | 1 | | | Vendor name | | | |
| RN:7 | RN_Vendor_ID | batch | ID or catalogue number assigned to the reagent by the vendor or provider | 1 | | | Vendor ID | | | |
| RN:8 | RN_Batch_ID | batch | Batch or lot number assigned to the reagent by the vendor or provider | 1 | | | Vendor batch ID | | | |
| RN:9 | RN_shRNA_Construct | canonical RNAi | A description of the RNA construct includes the name of vector, the gene that is targeted by the siRNA/shRNA, gene ID, regulatory region, selectable marker. | 2 | for shRNA only | BAO | RNA interference construct | http://bioprocess.org/ | | |
| RN:10 | RN_shRNA_Vector_Reference | canonical RNAi | Reference to publication or contact information (if applicable) | 2 | for shRNA only | PubMed | PMID | | | |
| RN:11 | RN_Target_Gene_Symbol | canonical RNAi | The NCBI Entrez Gene Symbol for the gene targeted by the siRNA or shRNA | 1 | It might be desirable to request the sequence of the target mRNA, especially if a particular splice variant is targeted. Also, it should be noted whether the target sequence lies in the coding region or UTR of the mRNA. | NCBI/Gene | Gene | http://www.ncbi.nlm.nih.gov/ | | |
| RN:12 | RN_Target_Gene_ID | canonical RNAi | The NCBI Entrez Gene ID for the gene targeted by the siRNA or shRNA | 1 | | NCBI/Gene | Gene ID | http://www.ncbi.nlm.nih.gov/ | | |
| RN:13 | RN_RNAi_Sense_Sequence | canonical RNAi | The nucleotide sequence of the sense (passenger) strand of the siRNA or the processed shRNA. | 2 | Note that several vendors do not make their siRNA sequences public. Thus, it might be impossible to require exact sequence information for all siRNAs. These vendors will submit context sequences to NCBI Probe db though, so one would always have Probe IDs. | BAO and NCBI Probe/vendor/laboratory | siRNA antisense sequence | http://bioprocess.org/ http://www.ncbi.nlm.nih.gov/Probe/ | | |

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| RN:14 | RN_Validation_Information | canonical RNAi | Information about experimental verification of siRNA/shRNA activity. A reference (PubMed or other suitable reference) should be provided. | 2 | Information about the cell line/cell type and organism used for validation, as well as the % reduction in protein expression and mRNA observed in the validation experiments; whether the target monitored in validation studies was the endogenous mRNA or a transfected mRNA. It would be useful information even if only a code is given that states whether an RNAi reagent was validated or not by LINCS effort or by others. | PubMed | PMID | | |
| LINCS experimental siRNA and shRNA related information | | | | | | | | | Notes |
| EXP_RN:1 | RN_Silencing_Reagents | experiment | Number of combined silencing RNA reagents per well | 1 | From MIARE | | | | |
| EXP_RN:2 | RN_Delivery_Type | experiment | Describe type of delivery, e.g. reverse transfection, infection, electroporation, intravenous injection, shooting, feeding | 1 | From MIARE | BAO | Silencing RNA delivery method | http://biop | |
| EXP_RN:3 | RN_Delivery_Reagent | experiment | Delivery reagent description, including, type, name, catalog number, manufacturer, and final concentration | 2 | From MIARE | BAO | Transfectio agent | http://biop | |
| EXP_RN:4 | RN_Concentration_Of_Silencing | experiment | The final concentration of the silencing reagents | 2 | From MIARE | | | | |
| EXP_RN_5 | RN_Cell_Number | experiment | Number of cells per well in the delivery plate | 1 | From MIARE | BAO | Cell number | http://biop | |
| EXP_RN:6 | RN_Assay_Conditions | experiment | Time to assay point from delivery of silencing RNA reagent; time of exposure of silencing RNA reagent; media changes | 2 | From MIARE | | | | |
| EXP_RN:7 | RN_Number_Of_Replicates | experiment | The number of replicates used in the experiment | 1 | From MIARE | | | | |