

Materials List for:

# Evaluation of Exon Inclusion Induced by Splice Switching Antisense Oligonucleotides in SMA Patient Fibroblasts

Rika Maruyama<sup>1</sup>, Aleksander Touznik<sup>1</sup>, Toshifumi Yokota<sup>1,2</sup>

<sup>1</sup>Department of Medical Genetics, University of Alberta Faculty of Medicine and Dentistry

<sup>2</sup>Muscular Dystrophy Canada Research Chair, Department of Medical Genetics, University of Alberta Faculty of Medicine and Dentistry

Correspondence to: Rika Maruyama at [yokotama@ualberta.ca](mailto:yokotama@ualberta.ca), Toshifumi Yokota at [toshifum@ualberta.ca](mailto:toshifum@ualberta.ca)

URL: <https://www.jove.com/video/57530>

DOI: [doi:10.3791/57530](https://doi.org/10.3791/57530)

## Materials

| Name                                               | Company                                     | Catalog Number | Comments                                                     |
|----------------------------------------------------|---------------------------------------------|----------------|--------------------------------------------------------------|
| SMA Fibroblasts                                    | Coriell NIGMS human genetic cell repository | GM03813        |                                                              |
| Dulbecco's Modified Eagle Medium (DMEM)            | Thermo Fisher                               | 11320033       |                                                              |
| Fetal Bovine Serum                                 | Sigma-Aldrich                               | F1051          |                                                              |
| Penicillin-Streptomycin (10,000 U/mL)              | Thermo Fisher                               | 15140122       |                                                              |
| Trypsin-EDTA (0.05%), phenol red                   | Thermo Fisher                               | 25300062       |                                                              |
| Serum-deprived media                               | Thermo Fisher                               | 31985070       |                                                              |
| Transfection reagent                               | Thermo Fisher                               | 15338100       |                                                              |
| guanidinium thiocyanate-phenol-chloroform (TRIzol) | Thermo Fisher                               | 15596-018      |                                                              |
| RT-PCR Primers                                     |                                             |                | Sequence 5' to 3'                                            |
| SMN2 forward:                                      |                                             |                | CTGCCTCCATTTCCTTCTG                                          |
| SMN2 reverse:                                      |                                             |                | TGGTGTCATTTAGTGCTGCTC                                        |
| GAPDH forward:                                     |                                             |                | TCCCTGAGCTGAACGGGAAG                                         |
| GAPDH reverse:                                     |                                             |                | GGAGGAGTTTGGTCGCTGT                                          |
| qPCR Primers                                       |                                             |                |                                                              |
| full-length SMN2 forward:                          |                                             |                | GCTATCATACTGGCTATTATATGGGTTTT                                |
| full-length SMN2 reverse:                          |                                             |                | CTCTATGCCAGCATTTCTCCTTAAT                                    |
| GAPDH forward:                                     |                                             |                | GCAAATTCCATGGCACCGT                                          |
| GAPDH reverse:                                     |                                             |                | AGGGATCTCGCTCCTGGAA                                          |
| Chloroform                                         | Sigma-Aldrich                               | P3803          |                                                              |
| Glycogen, RNA grade                                | Thermo Fisher                               | R0551          |                                                              |
| ImageJ Software                                    |                                             |                |                                                              |
| Protease cocktail inhibitor                        | Roche                                       | 11836153001    |                                                              |
| Cathode Buffer                                     |                                             |                | 0.025 M Tris base + 40 mM 6-aminocaproic acid + 20% Methanol |
| Anode Buffer                                       |                                             |                | 0.03 M Tris Base + 20% Methanol                              |
| Concentred Anode Buffer                            |                                             |                | 0.3 M Tris base + 20% Methanol                               |
| Beta Mercaptoethanol                               | Millipore                                   | ES-007-E       |                                                              |
| PVDF membrane                                      | GE                                          | 10600021       |                                                              |
| Loading/sample buffer for Western blotting         | NuPage Invitrogen                           | NP007          |                                                              |
| One-Step RT-PCR kit                                | Qiagen                                      | 210210         |                                                              |

|       |          |      |  |
|-------|----------|------|--|
| dNTPs | Clontech | 3040 |  |
|-------|----------|------|--|