## Supplementary Materials:

Figure S1: Prediction of splicing regulators within targeting regions of ASO1-9


Figure S2: Agarose gel electrophoresis


Figure S3: Prediction of splicing regulators within asRNA34 targeting region


| Designation | Sequence | Regulator |
| :---: | :---: | :---: |
| R0612( ESE-SC35) | GGCCACCA | Enhancer |
| R0621 (ESE-SRp40) | TGCAGA, cacagA, TGCAGC | Enhancer |
| R0805 | CATGg | Silencer |
| R0815 | ggaag | Enhancer |
| R0836 | AGATCC | Silencer |
| R0910 | GAGCGAGA, GCGAGATG, GCAGGAGA | Enhancer |
| R0915 | TGGT | Silencer |
| R0935 | CAACAGCG | Enhancer |

