**Supplementary Table S1 :**

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| --- | --- | --- | --- |
| Concentration of Cas9/sgRNA | Type of SgRNA | Sub-cellular site of injection | Number of mutated blastocysts (%) |
| 25ng/10ng | Sg5 | Nucleus | 0/20 (0%) |
| Cytoplasm | 1/16 (6%) |
| Sg8 | Nucleus | 0/16 (0%) |
| Cytoplasm | 0/15 (0%) |
| 50ng/20ng | Sg5 | Nucleus | 3/16 (19%) |
| Cytoplasm | NA |
| Sg8 | Nucleus | 6/24 (25%) |
| Cytoplasm | 4/17 (23.5%)  + 1 indel/17 |

NA : not available