

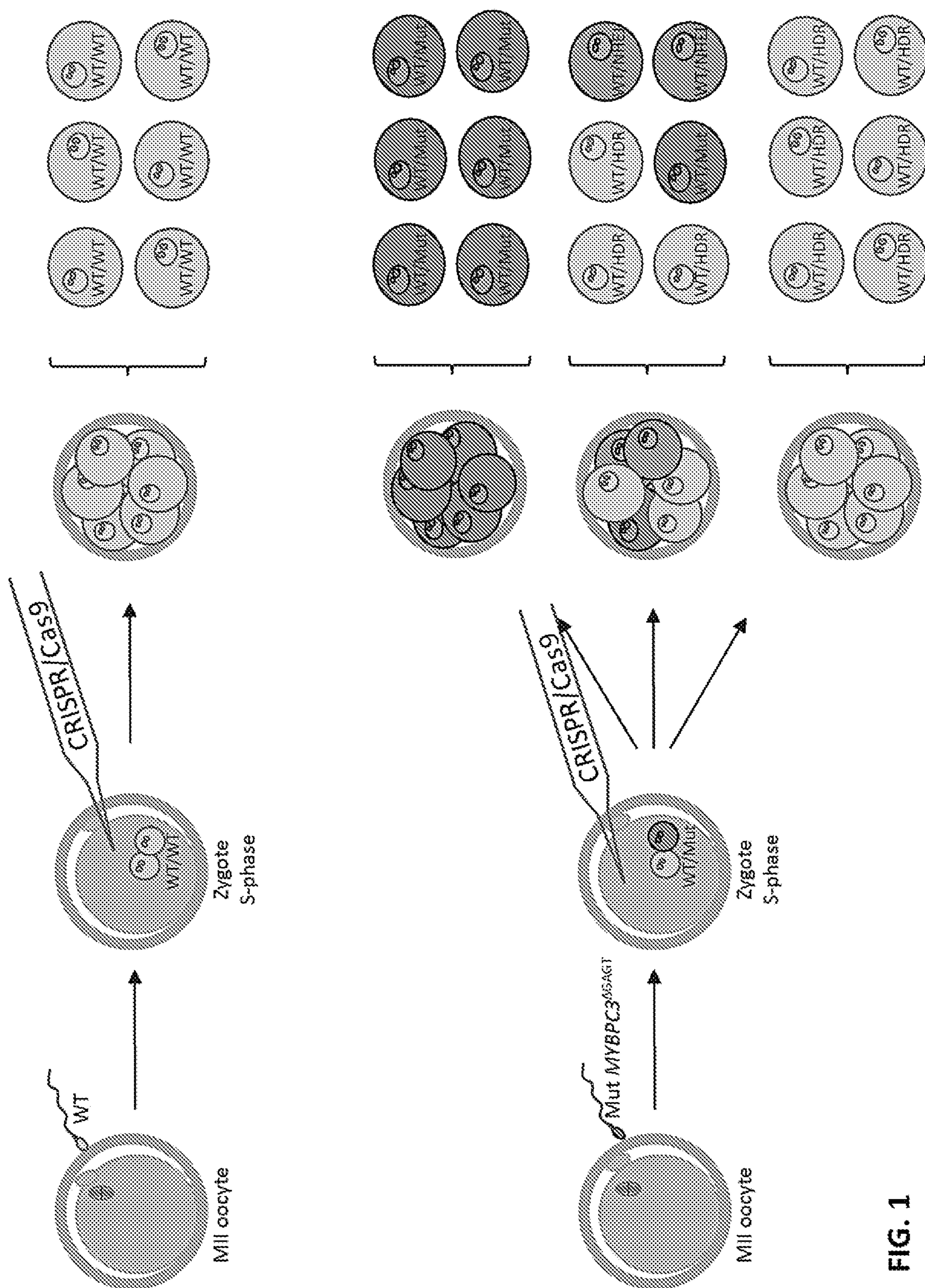


FIG. 1

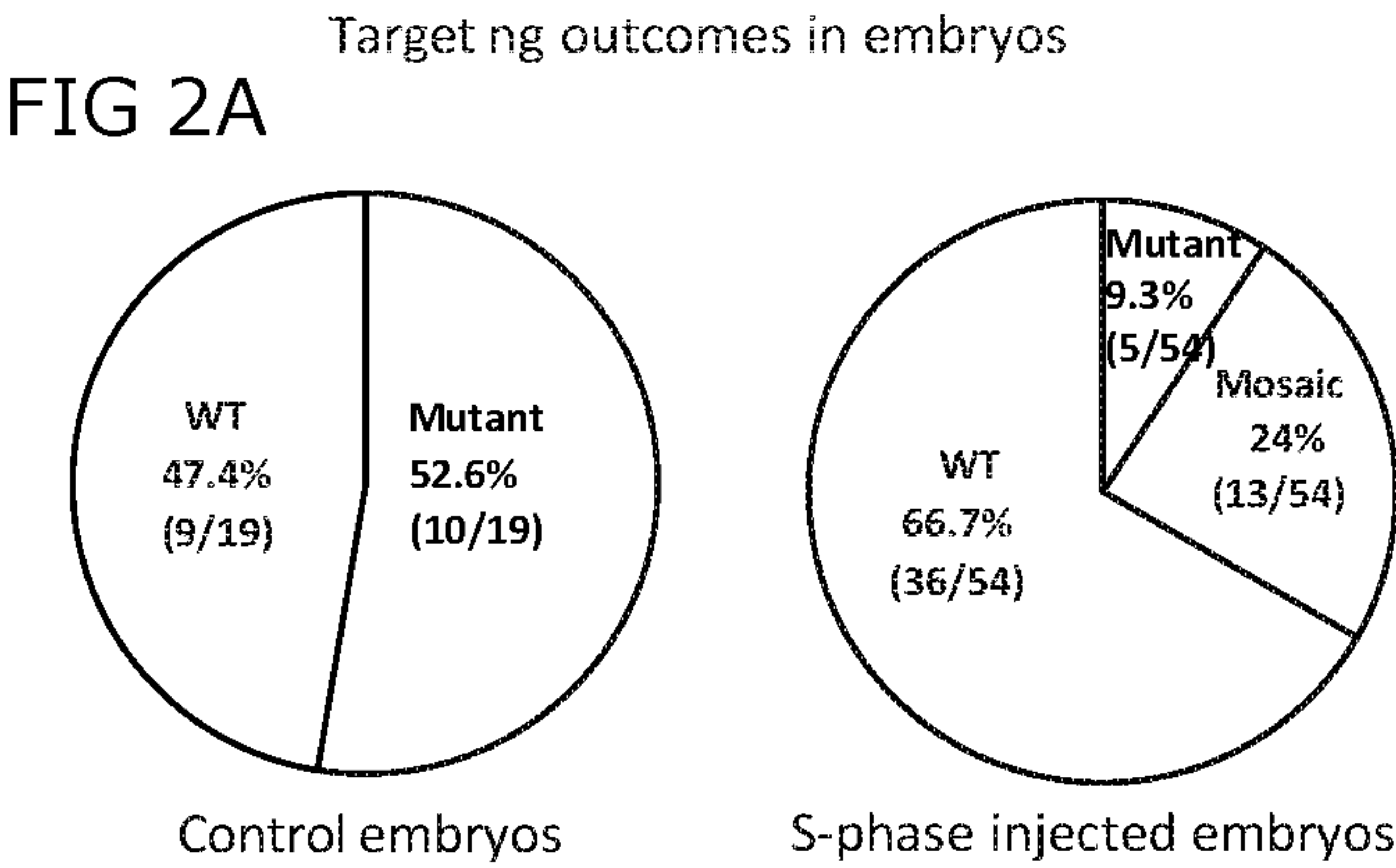
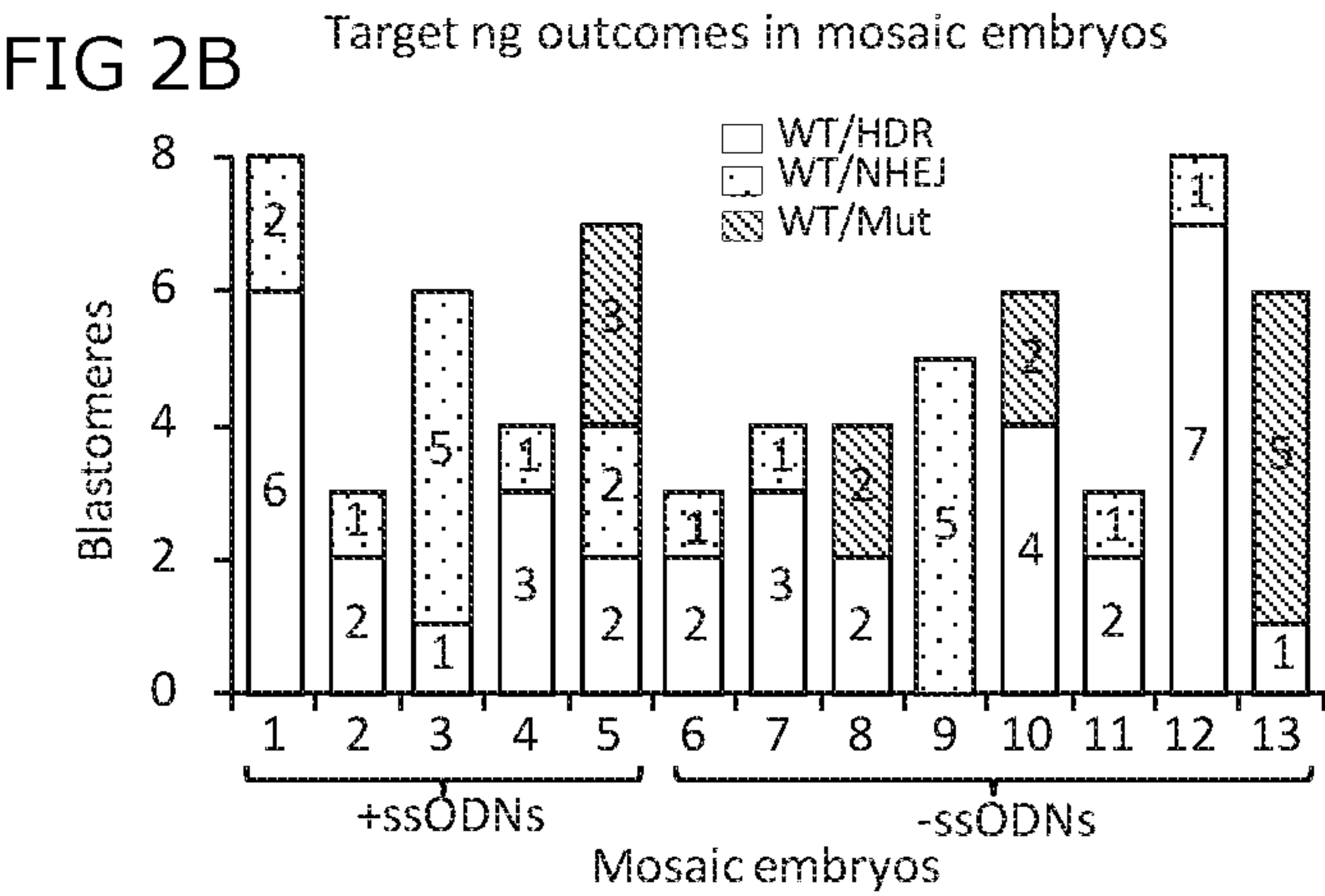


**FIG 2C** Blastomere genotypes in mosaic embryos

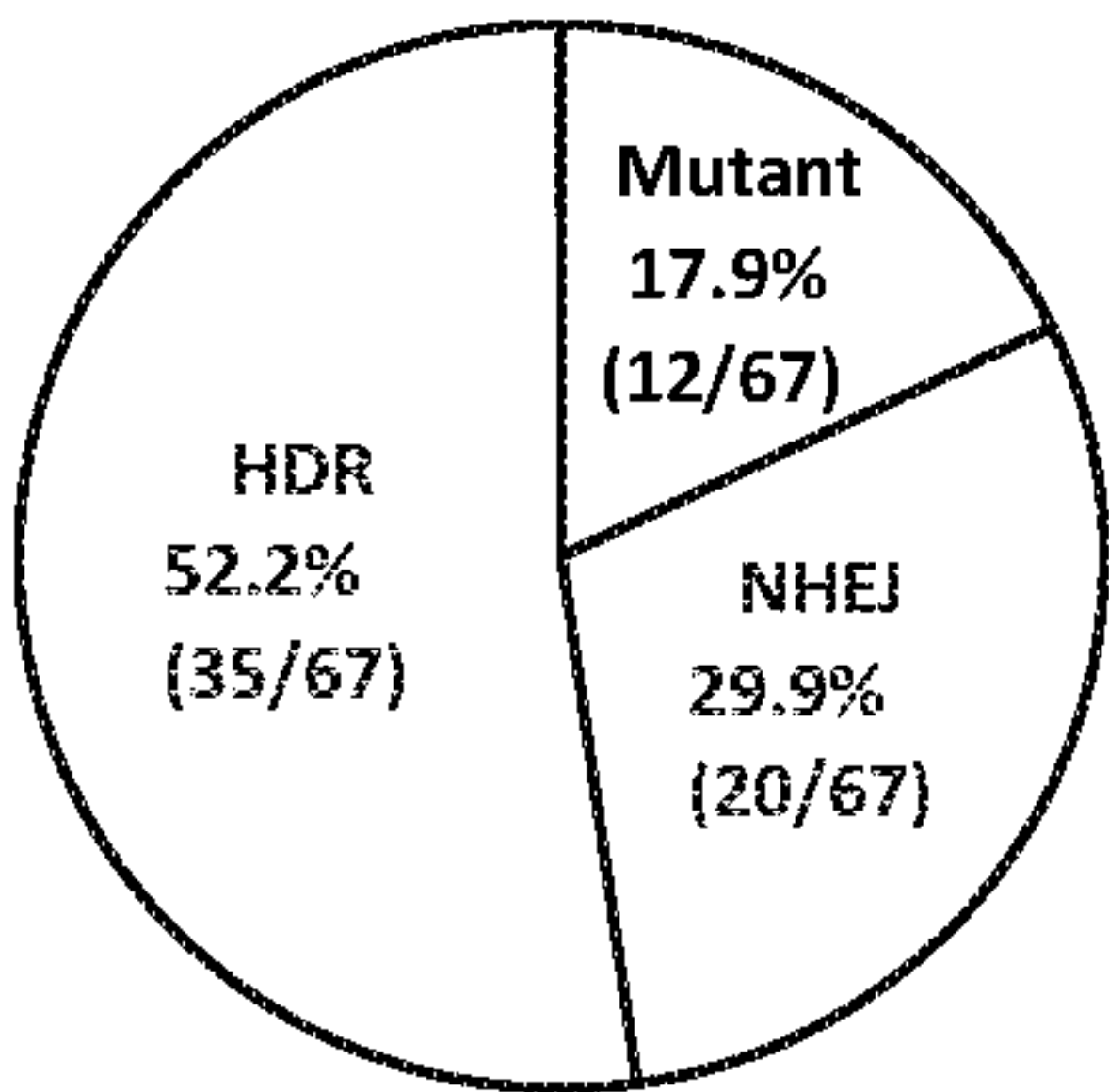
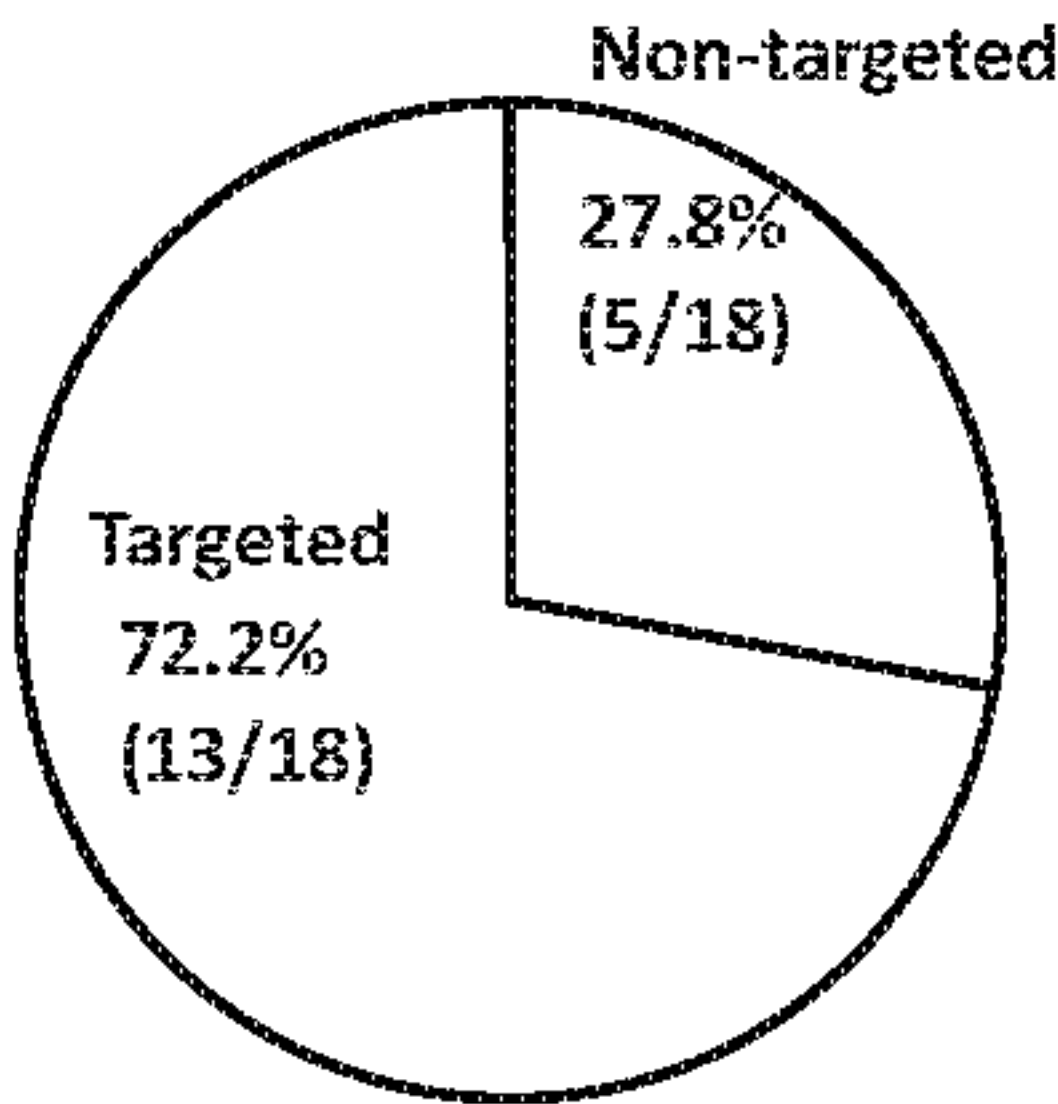


**FIG 2D** Overall target ng efficiency in embryos



Overall HDR efficiency in embryos

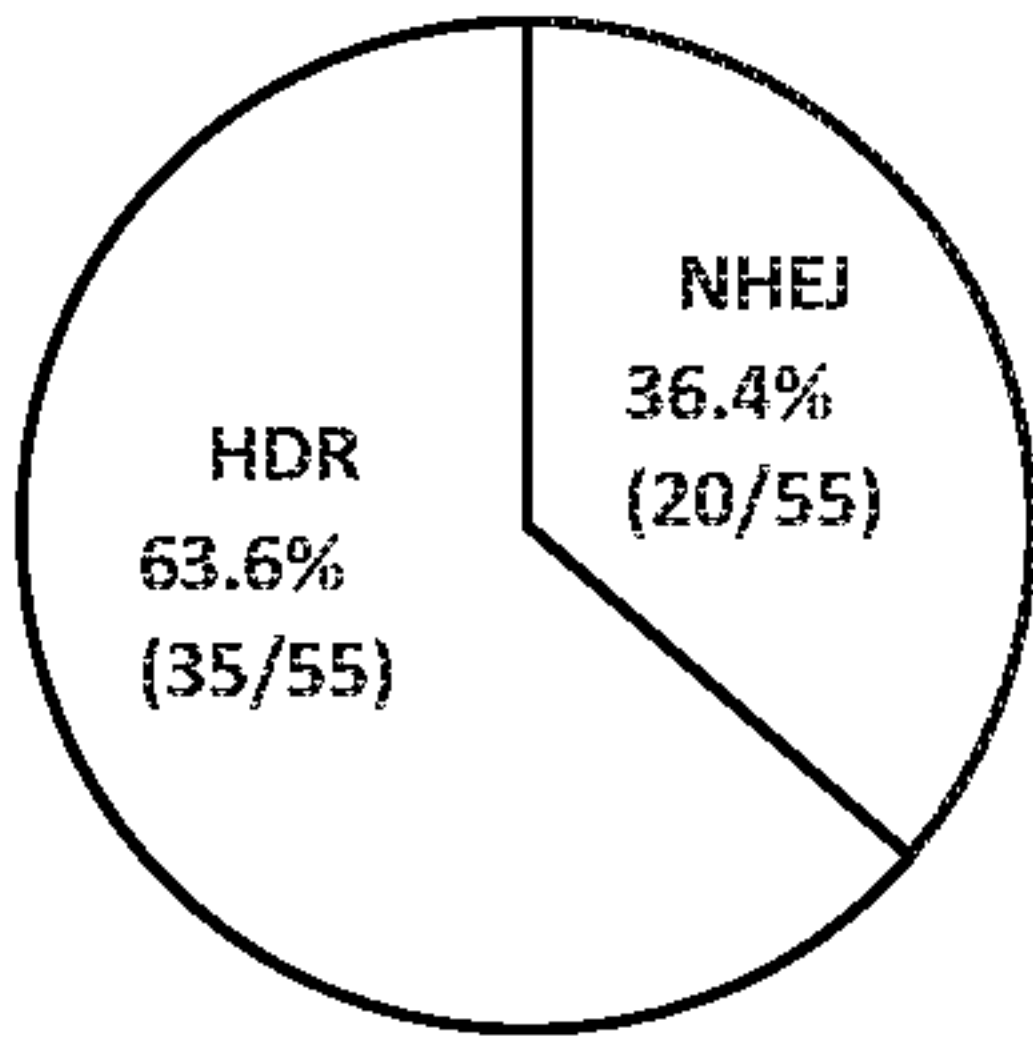


**FIG 2E** Target ng efficiency in embryos and iPSCs

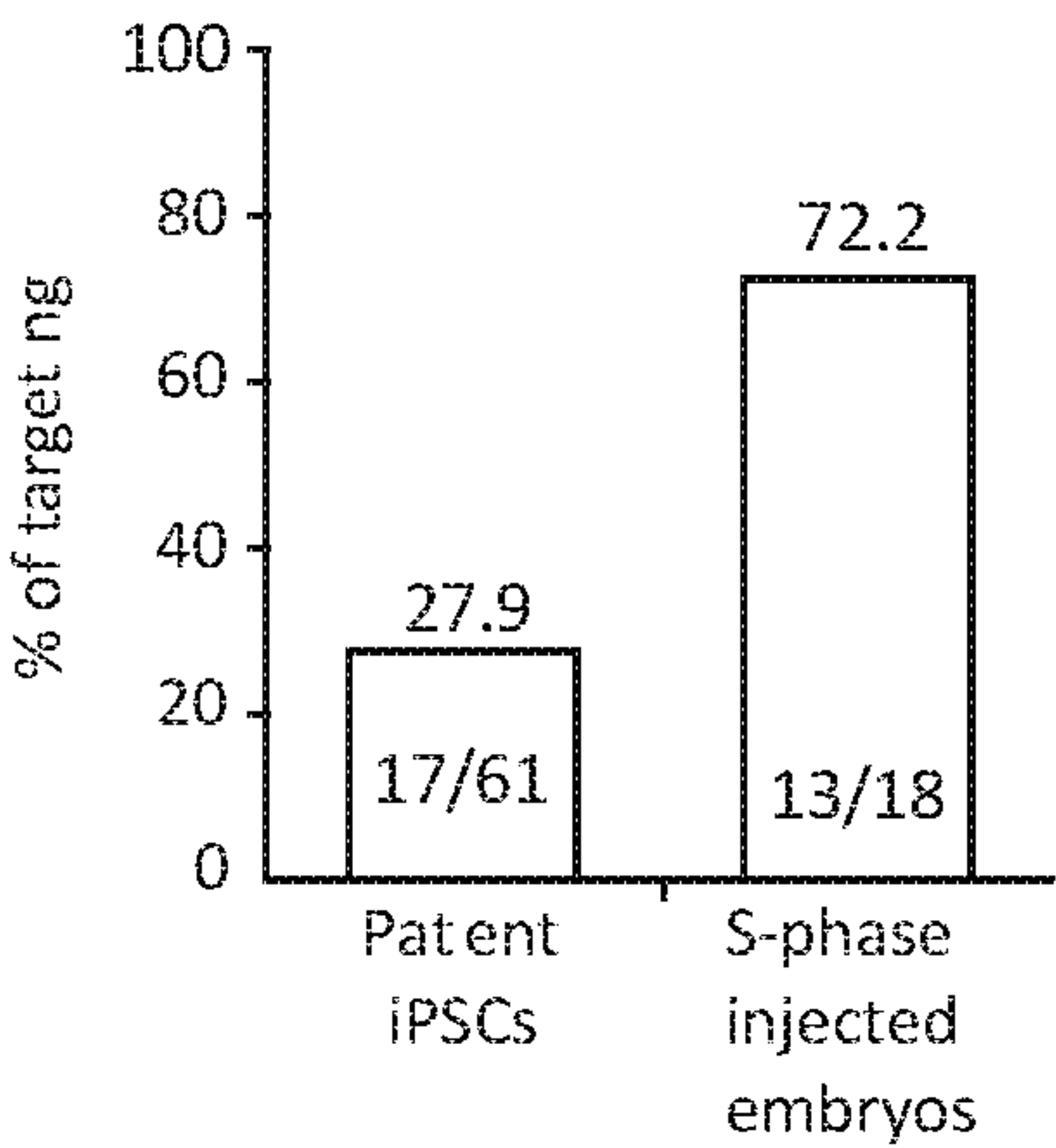
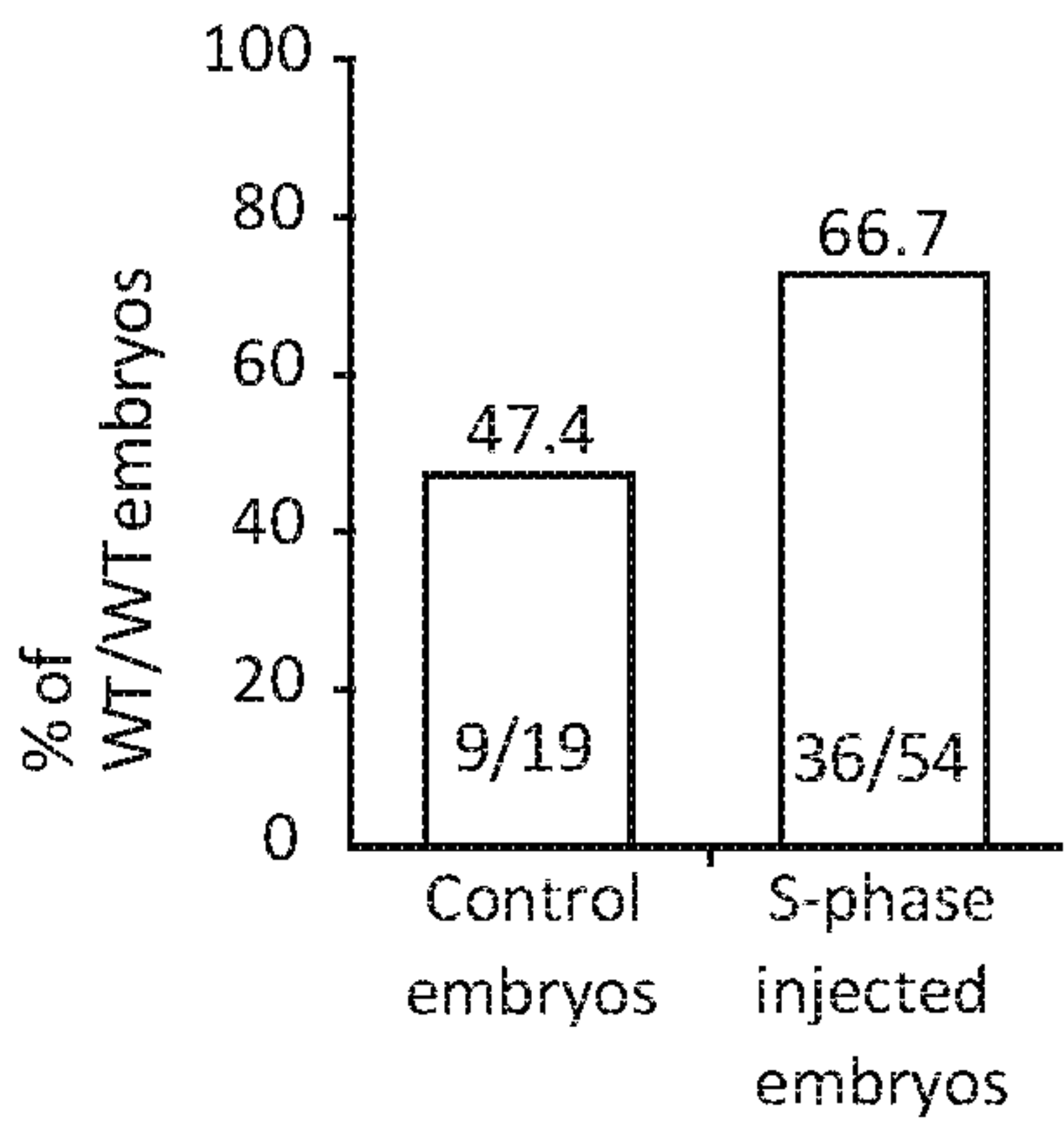


**FIG 2F** Yield of WT/WT embryos



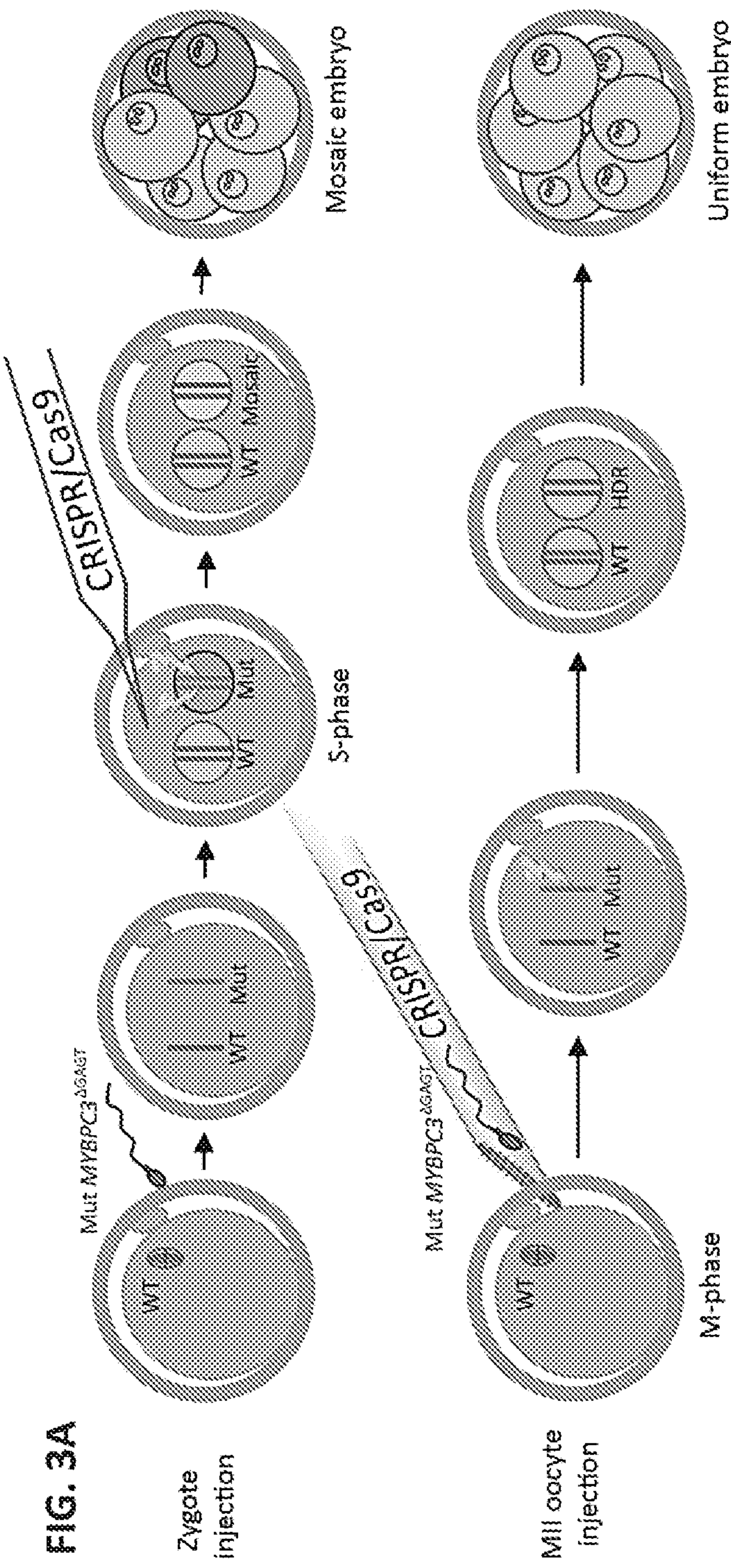


**FIG. 3A**

Targeting outcomes

**FIG. 3B**

Yield of WT/WT embryos

**FIG. 3C**

M-phase

**FIG. 3D**

S-phase

**FIG. 3E**

Mosaic embryo

**FIG. 3F**

Uniform embryo

**FIG. 3G**

Embryo genotype distribution

**FIG. 3H**

HDR with and w/o ssODN

**FIG. 3I**

Yield of WT/WT embryos

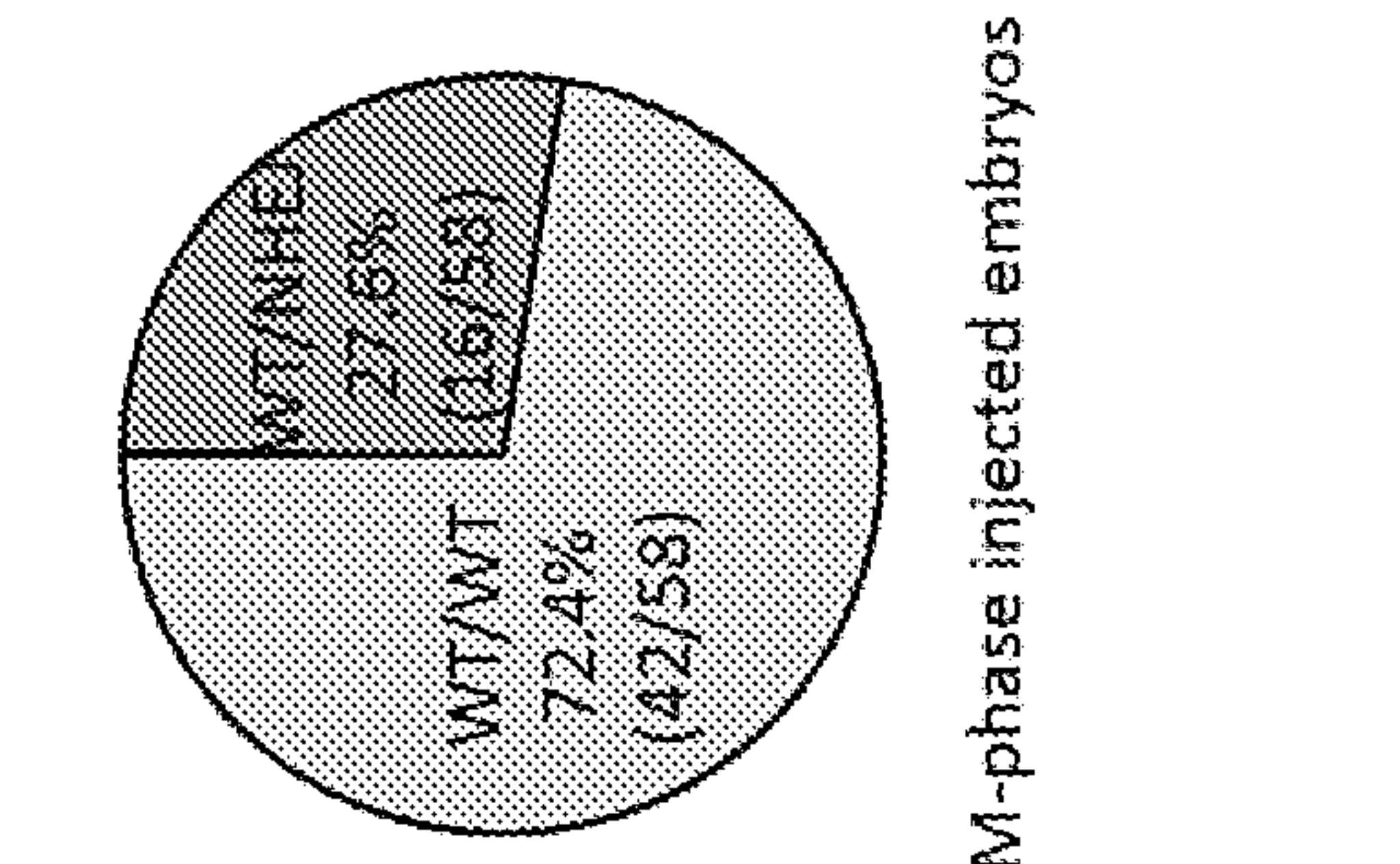
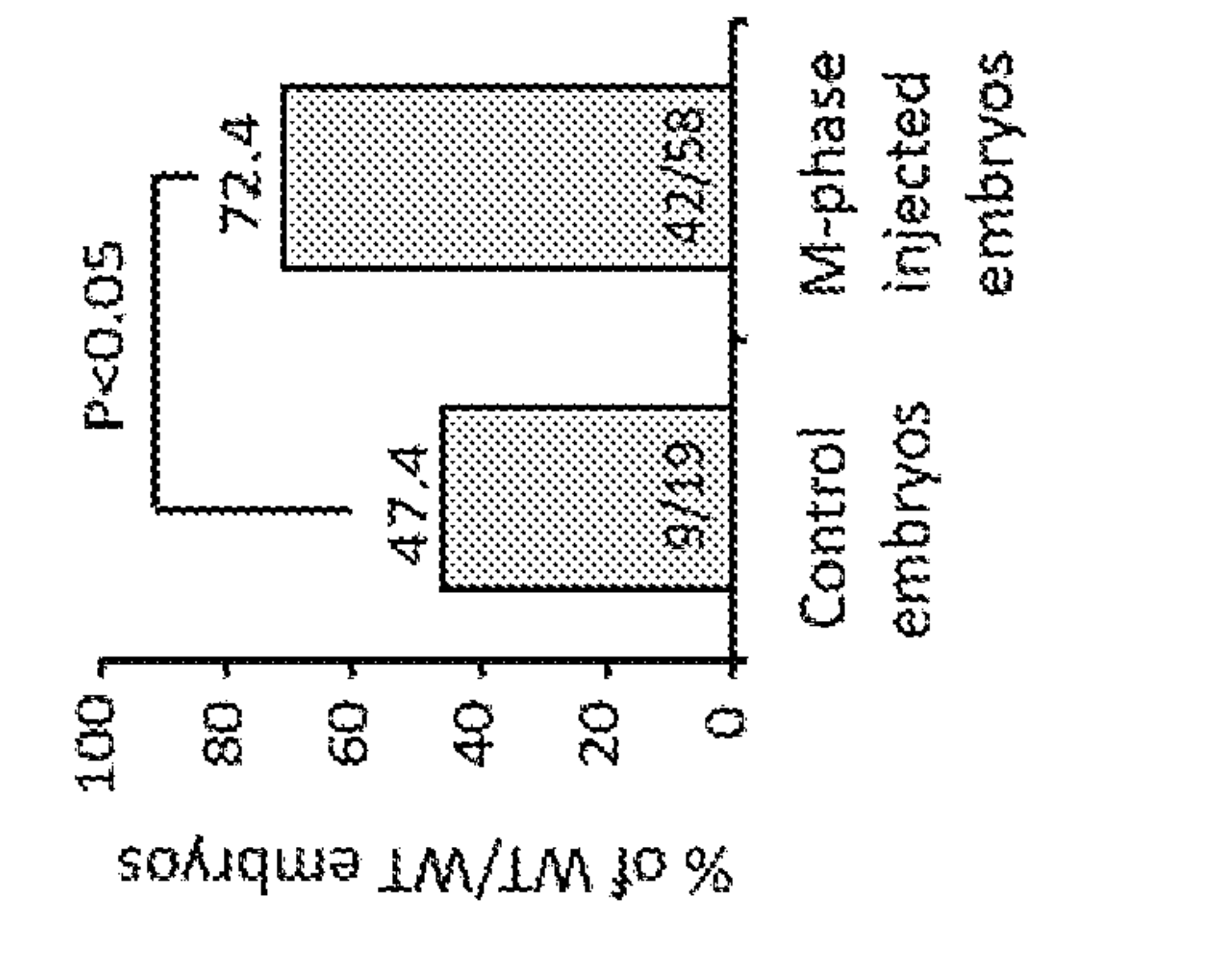
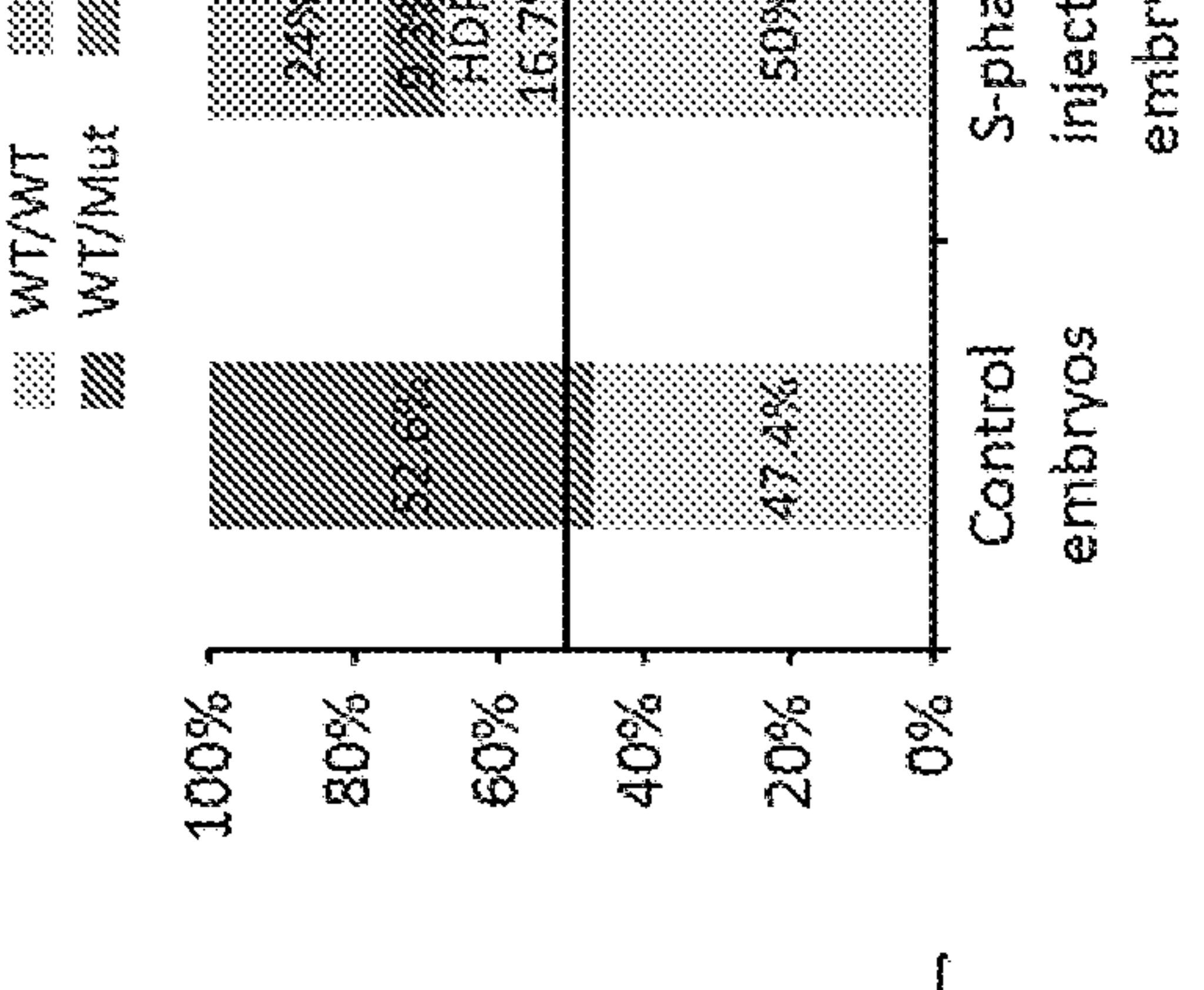


FIG. 4A

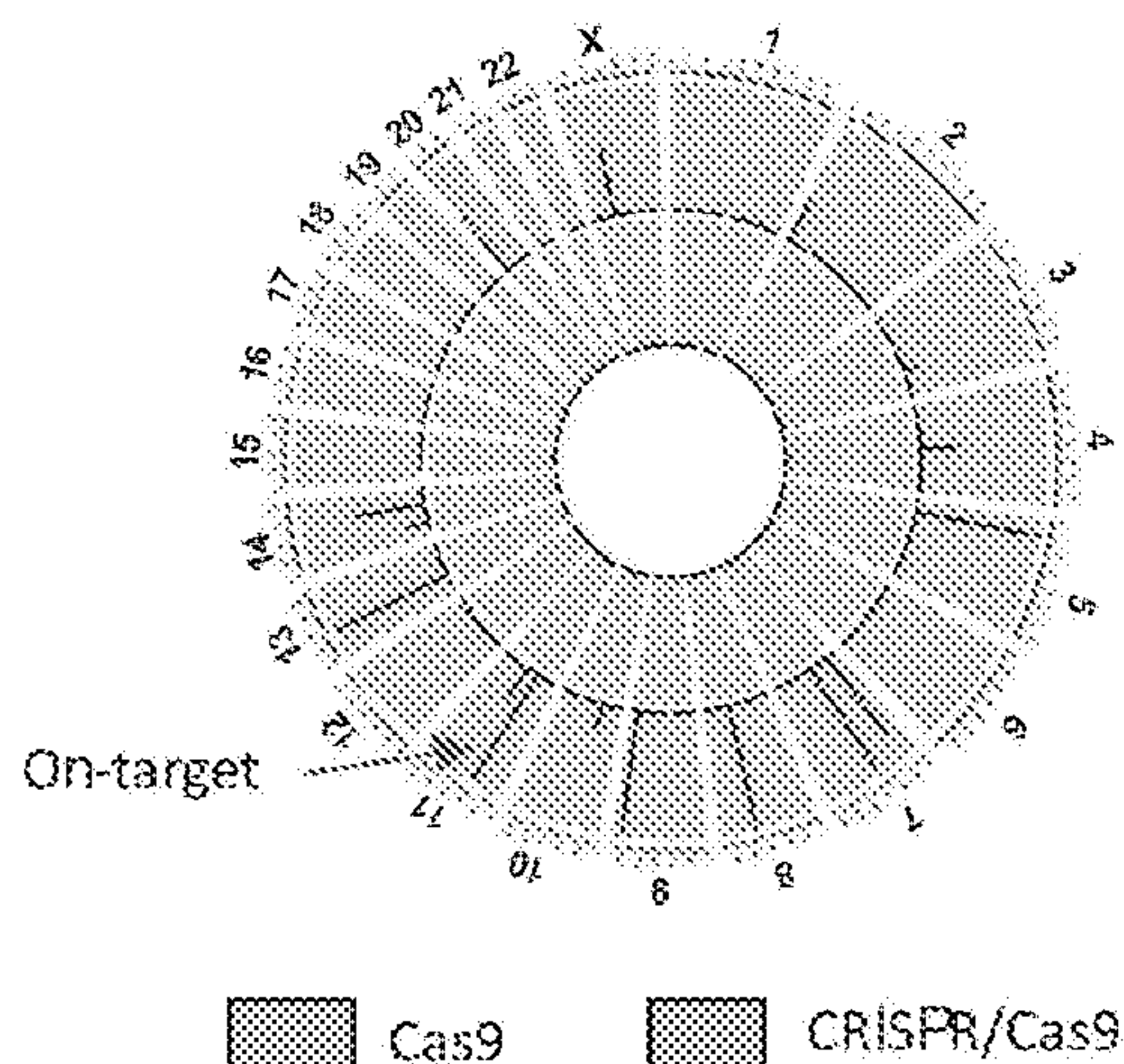


FIG. 4D

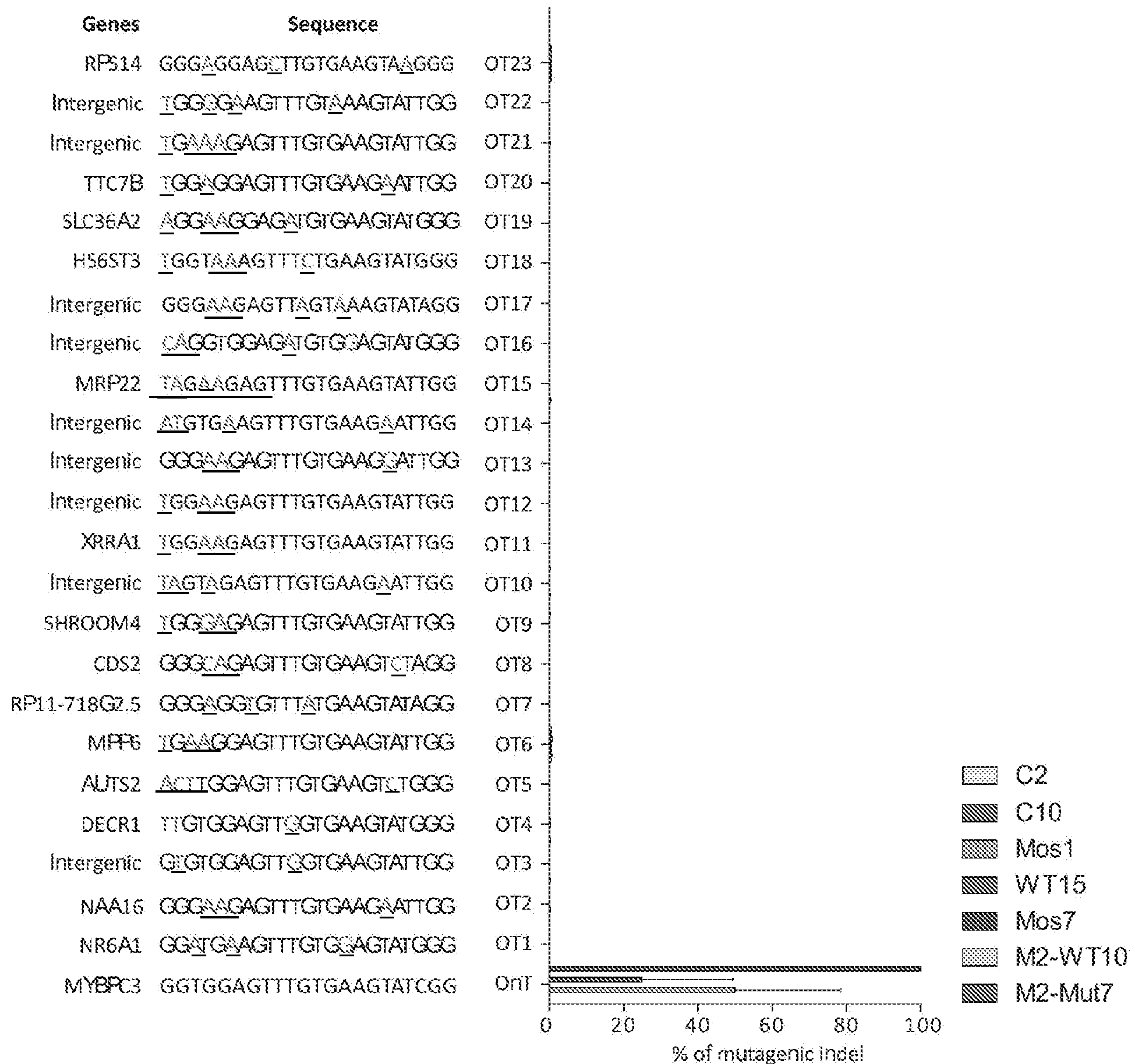


FIG. 4B

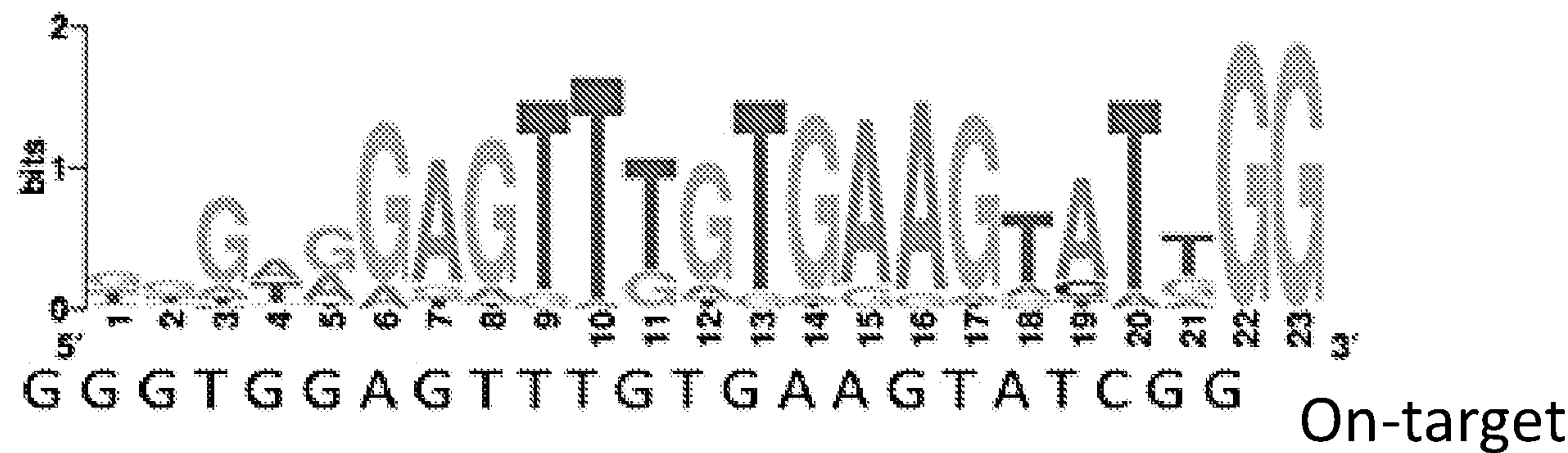


FIG. 4C

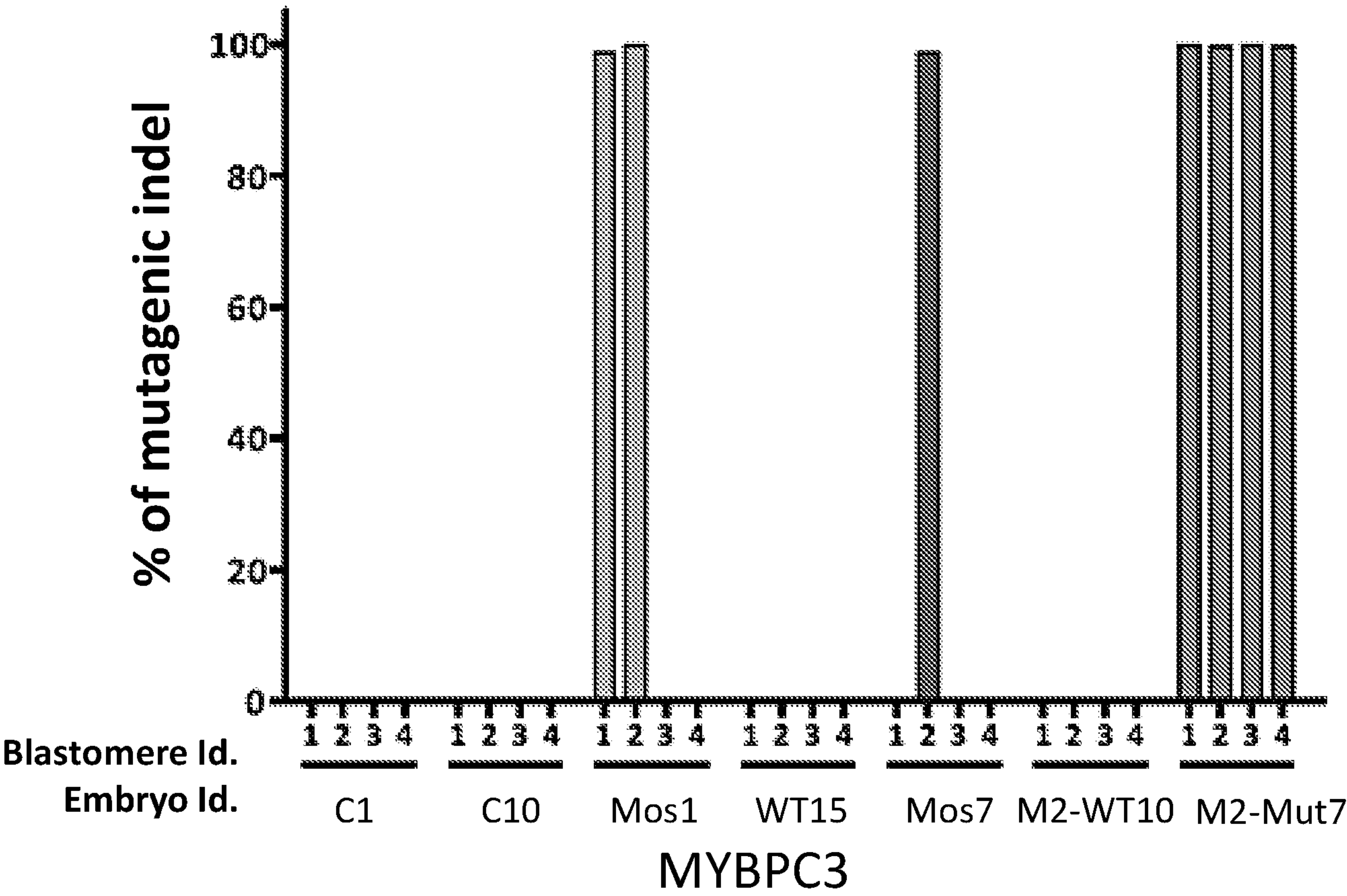
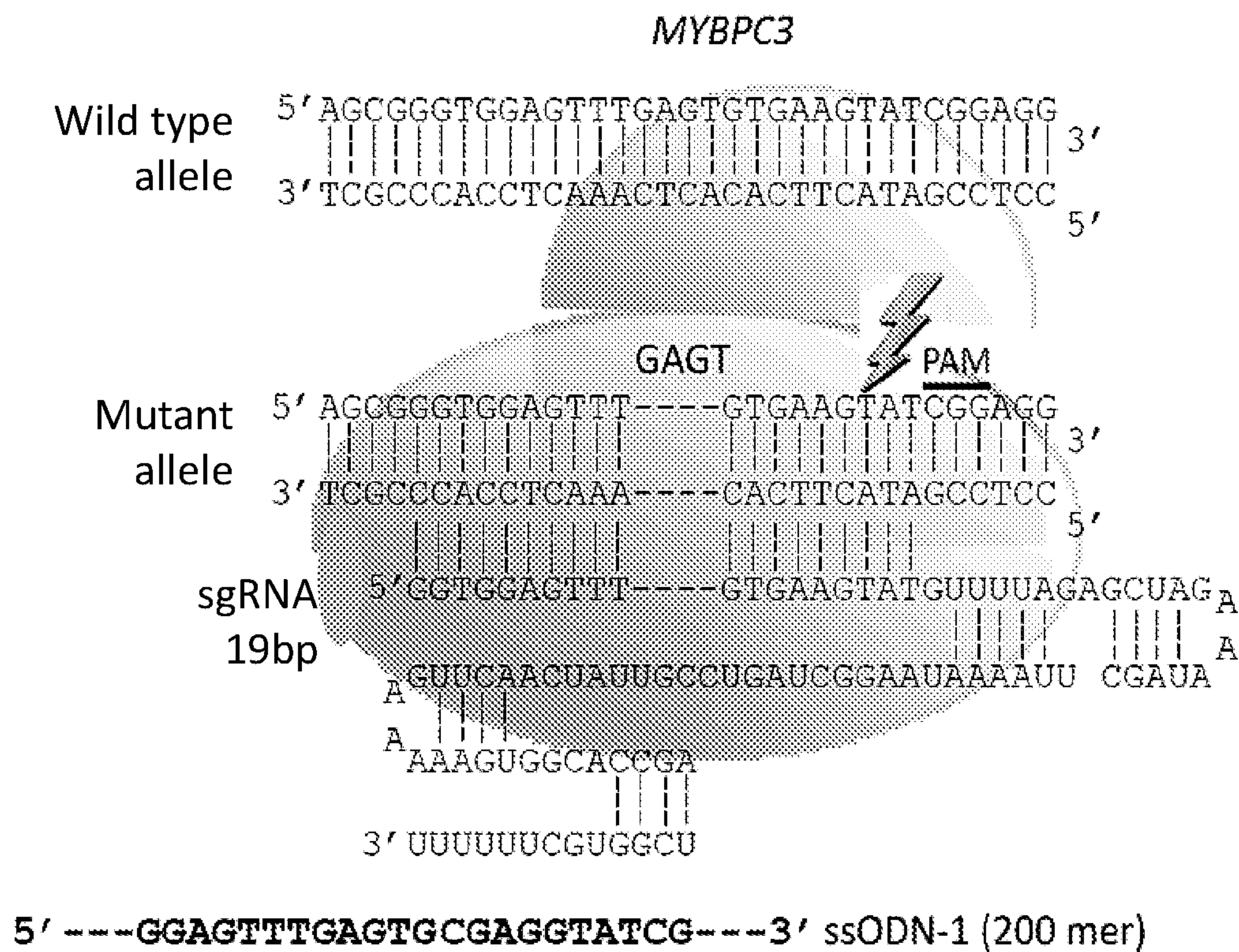
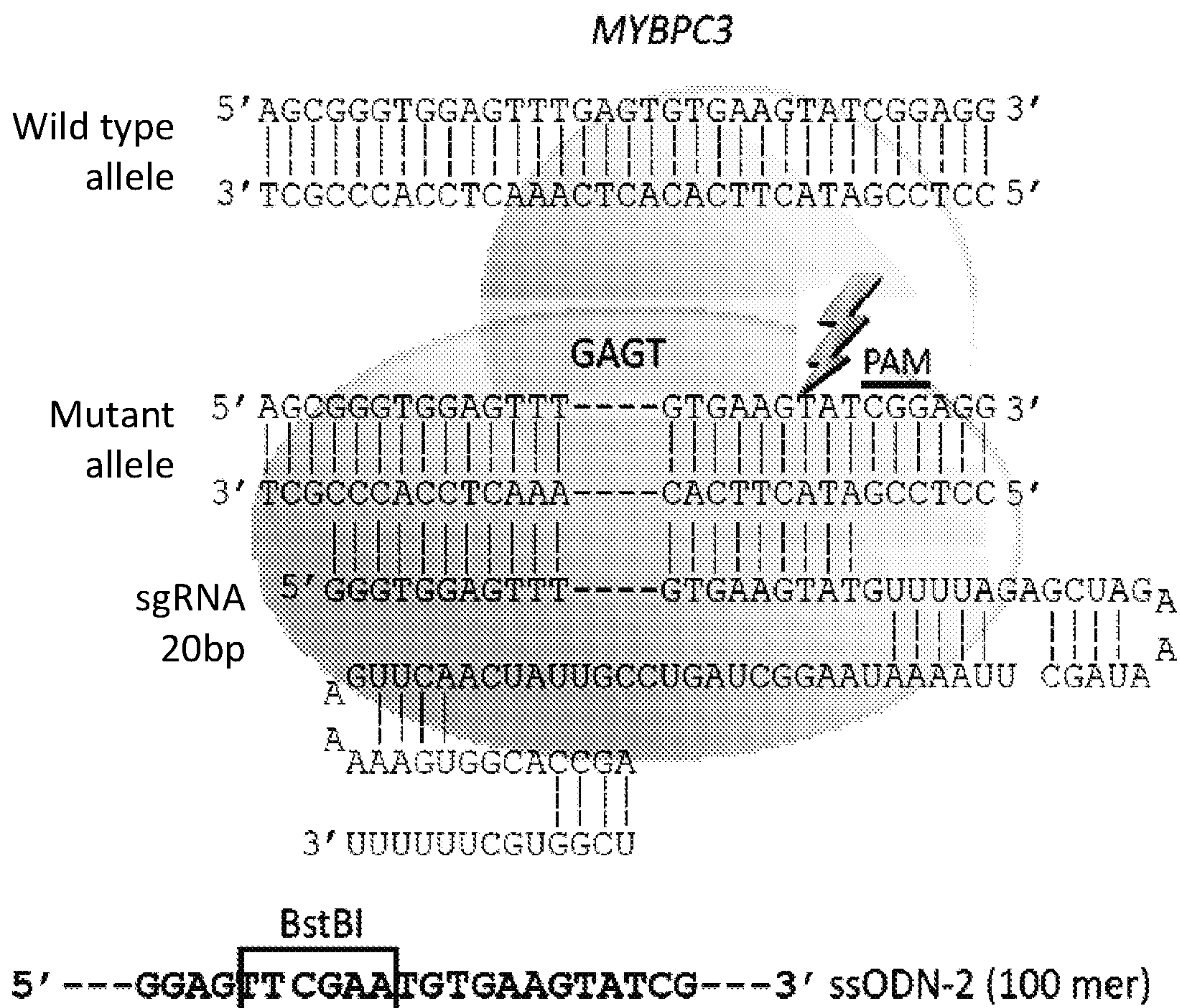
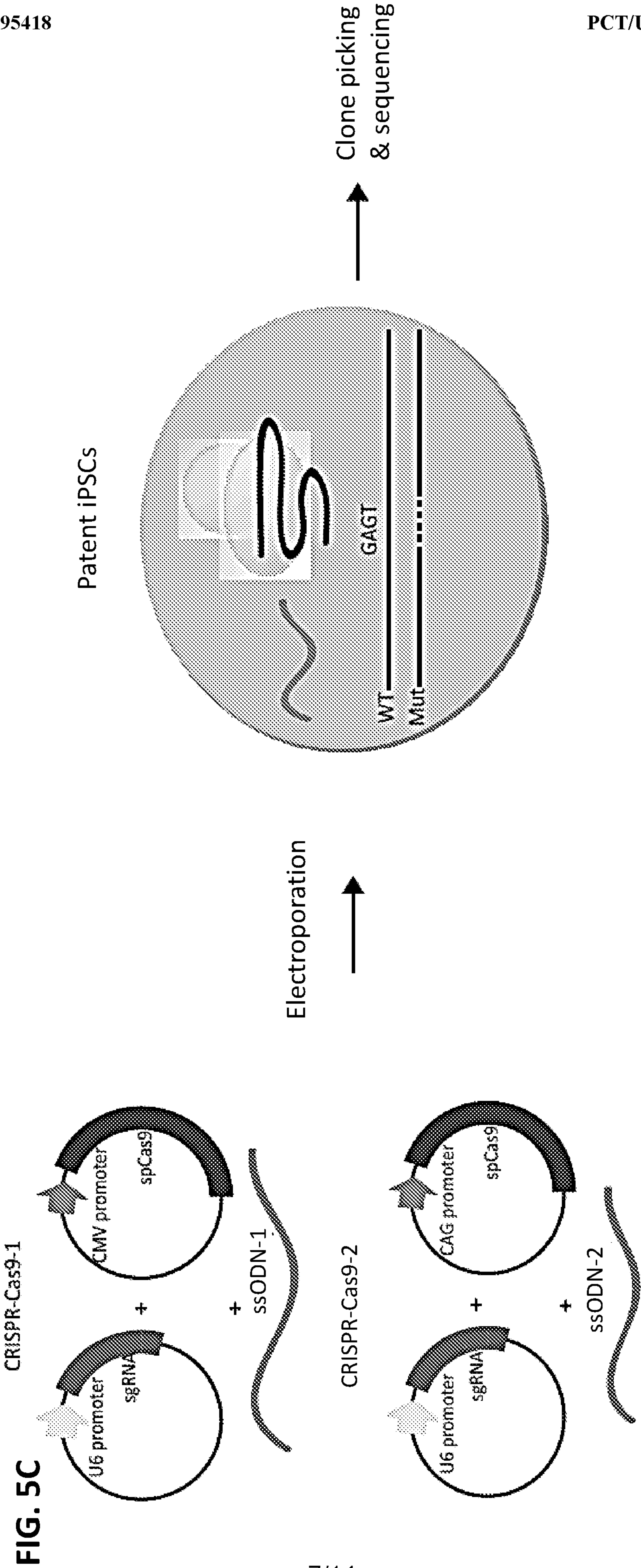


**FIG. 5A** CRISPR-Cas9-1 (sgRNA(19bp)-Cas9)**FIG. 5B** CRISPR-Cas9-1 (sgRNA(20bp)-Cas9)



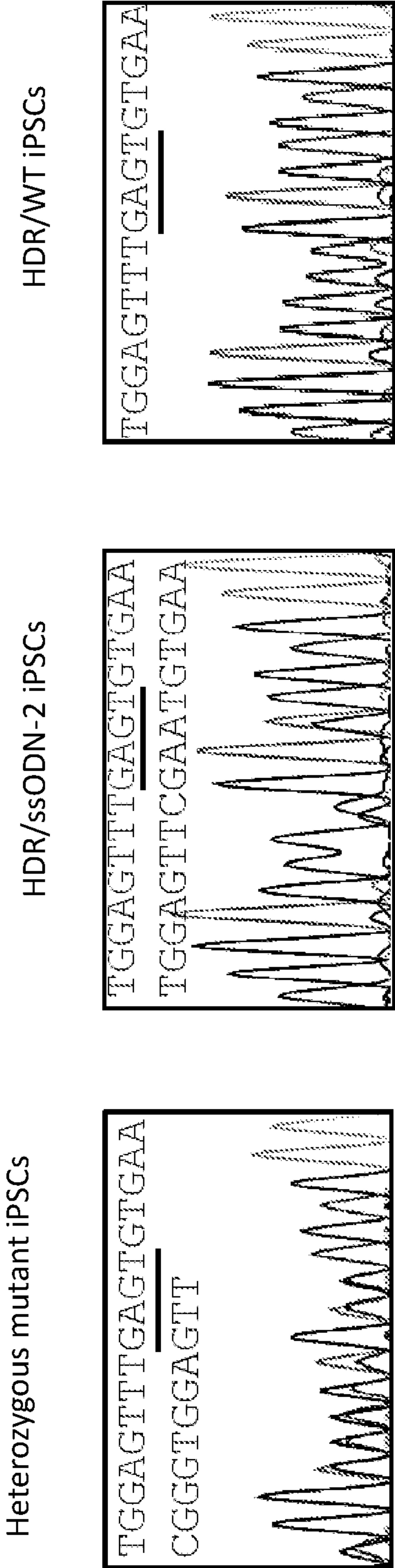
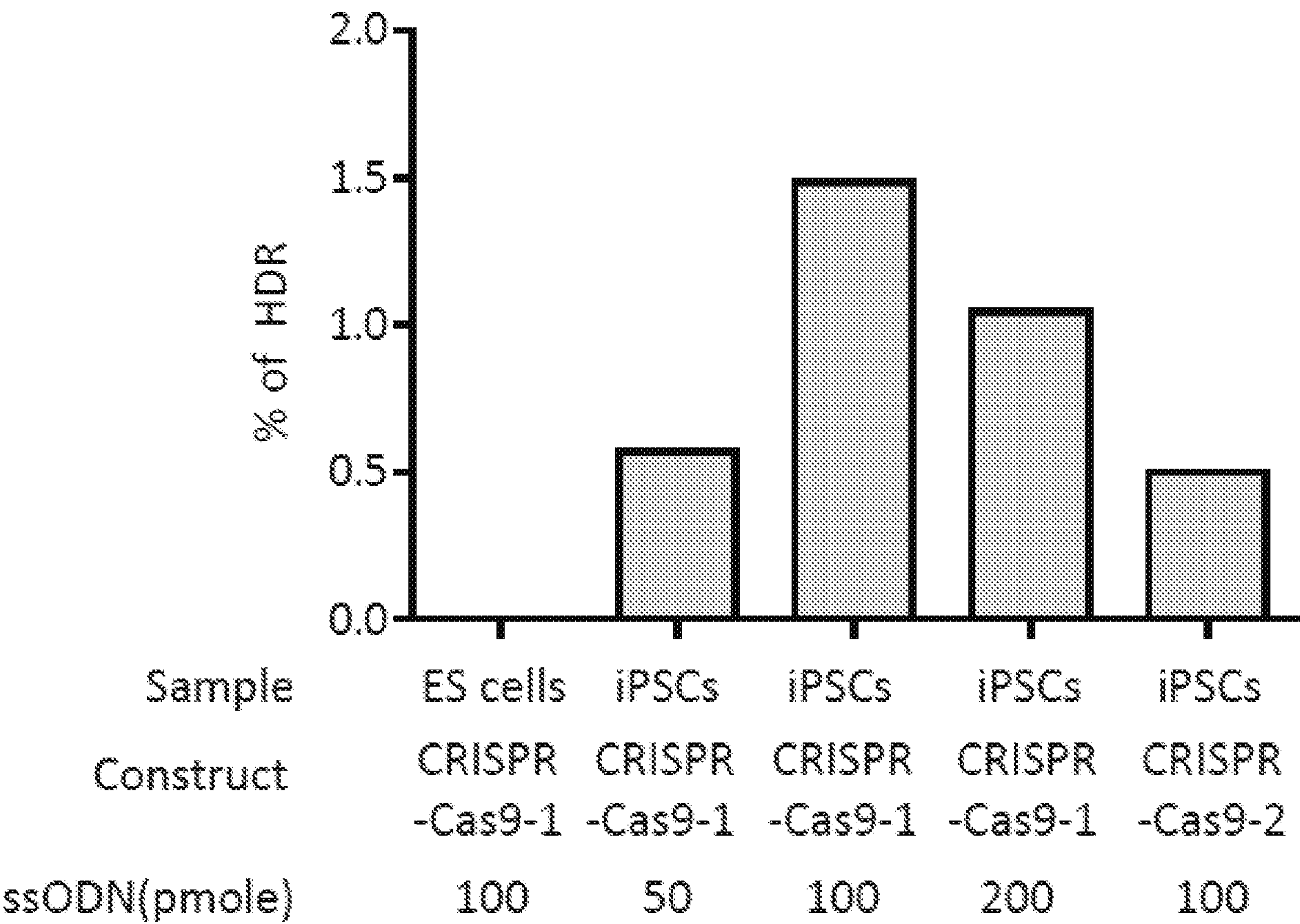
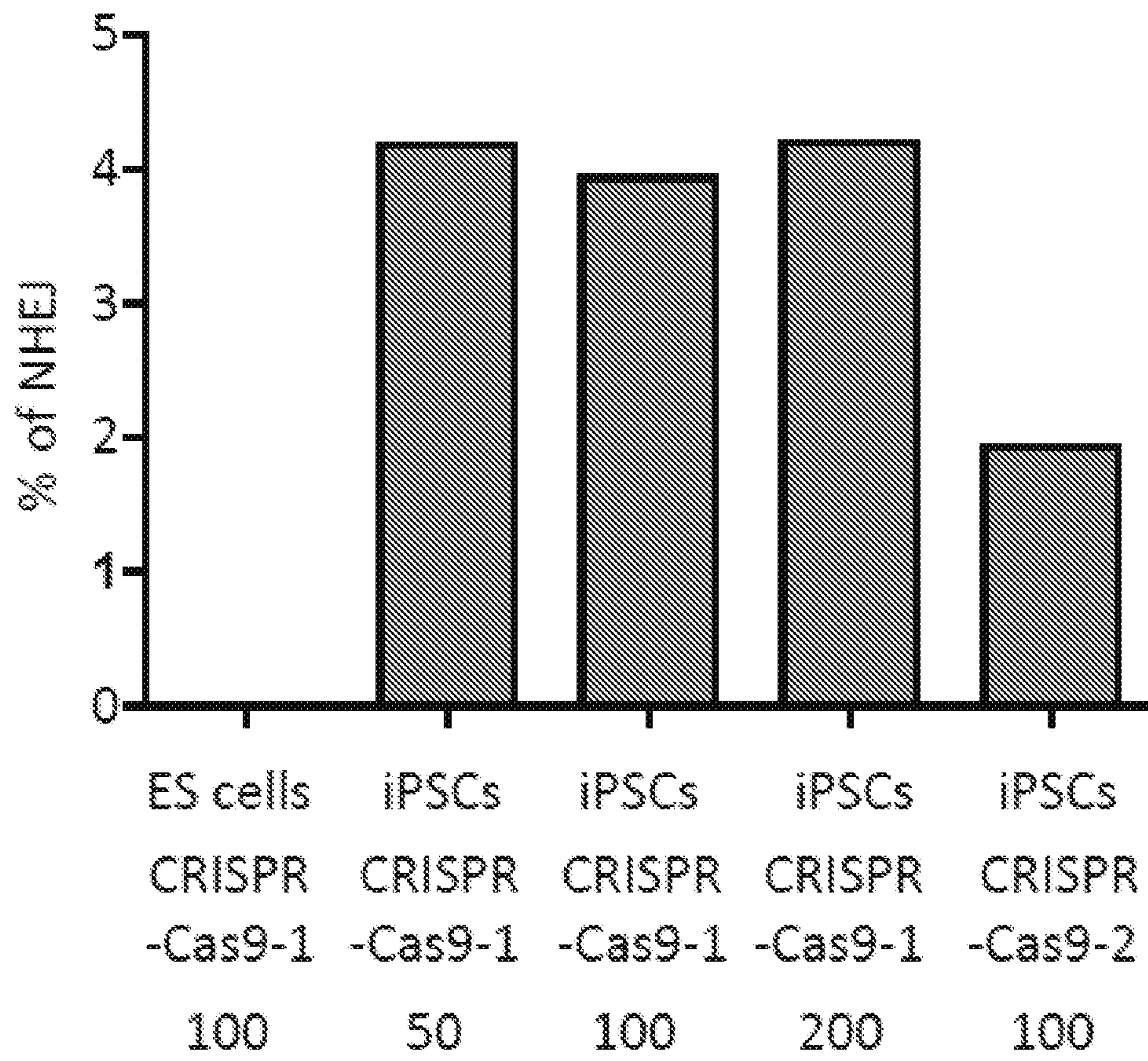


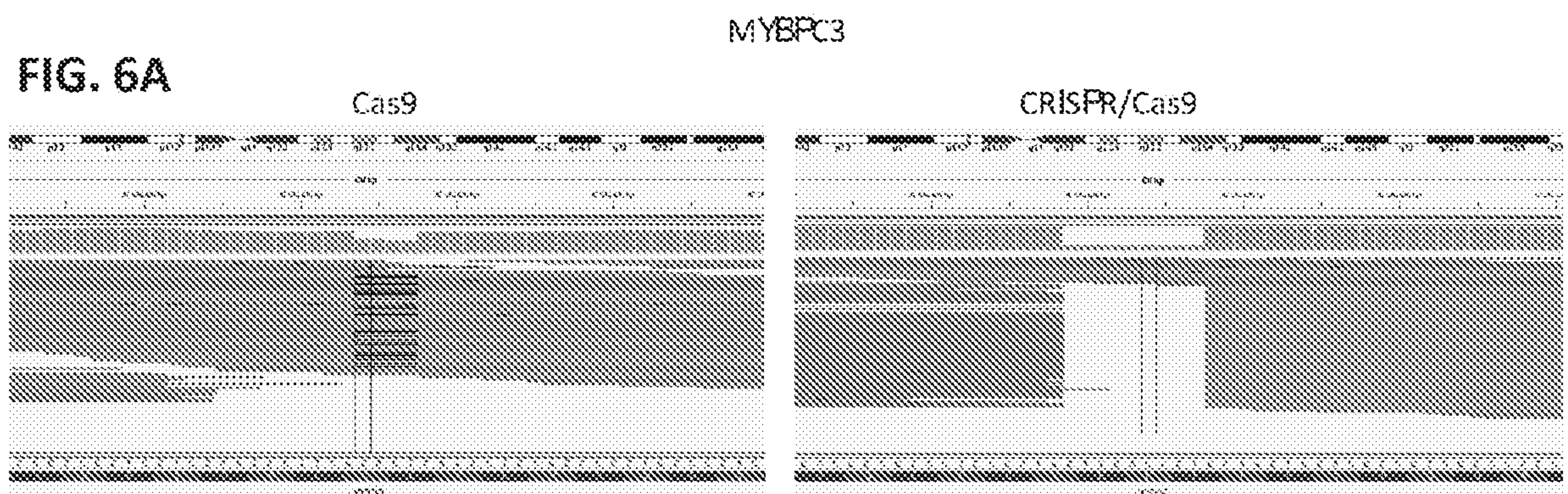
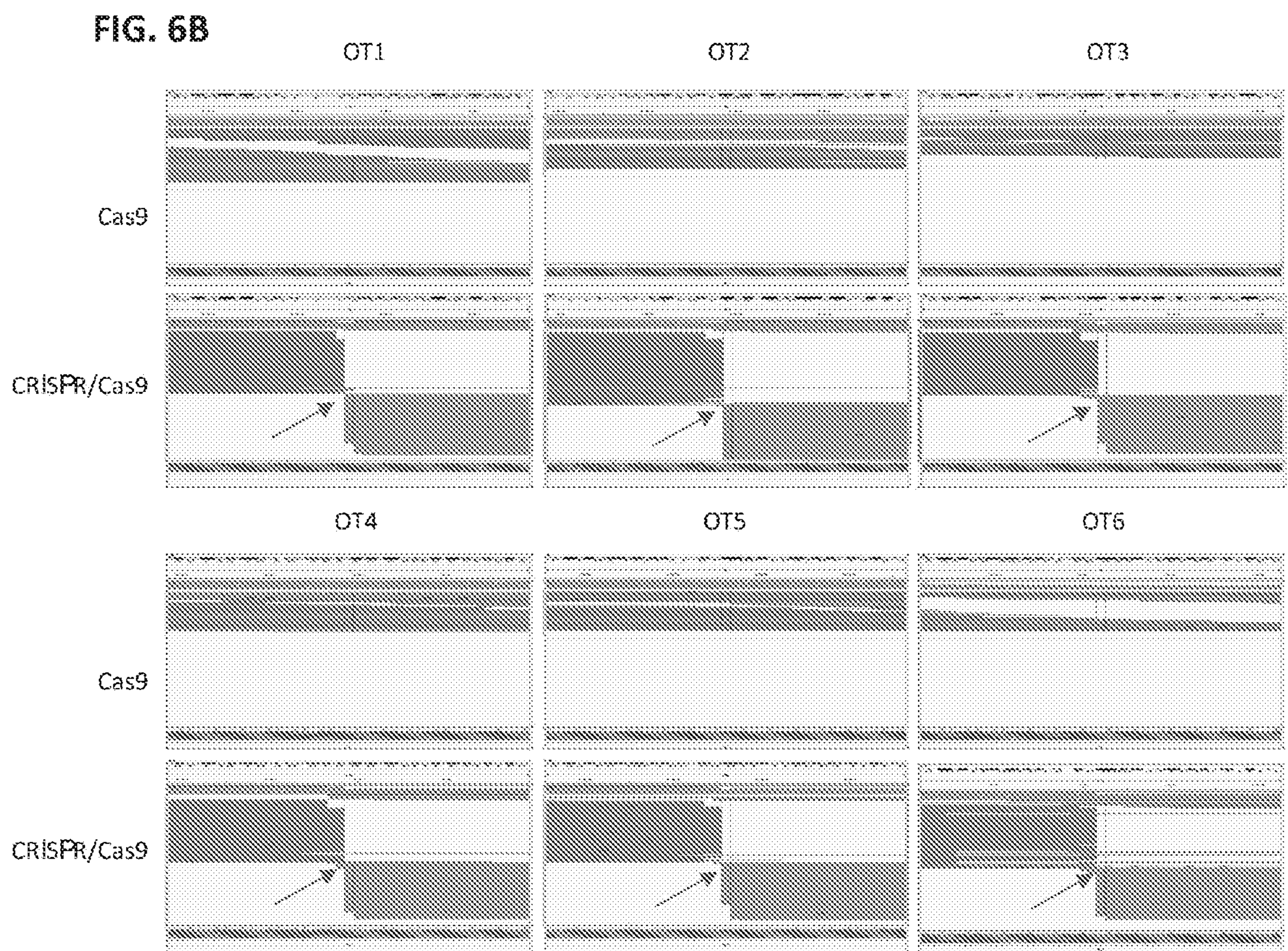
FIG. 5D

FIG. 5E

| CRISPR-Cas9 | Clones analyzed | Clones targeted | Clones with NHEJ (%) | Clones corrected (HDR/ssODN) | Clones corrected (HDR/WT) | HDR efficiency |
|-------------|-----------------|-----------------|----------------------|------------------------------|---------------------------|----------------|
| 1           | 61              | 17 (27.9%)*     | 10 (58.8%)           | 7                            | 0                         | 41.2%(7/17)    |
| 2           | 175             | 23 (13.1%)      | 20 (86.9%)           | 2                            | 1                         | 13%(3/23)      |

FIG. 5F





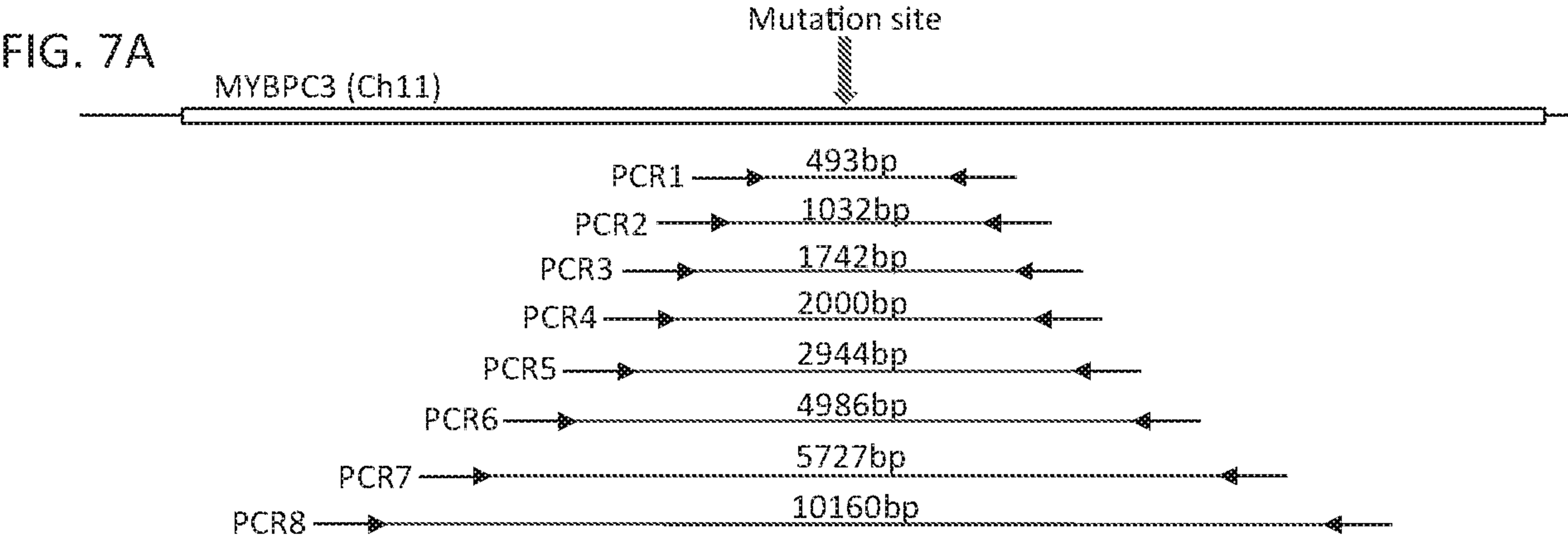
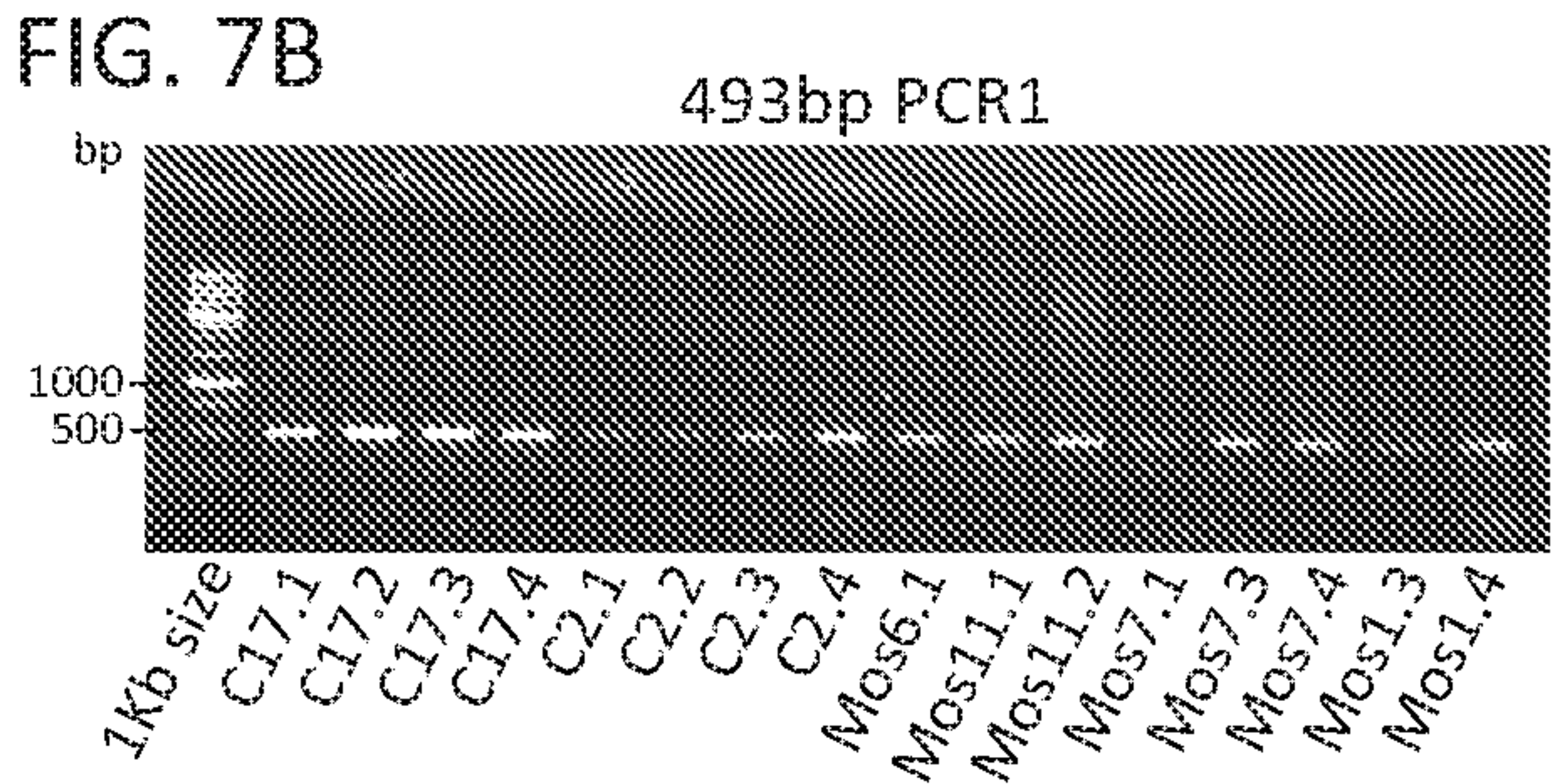
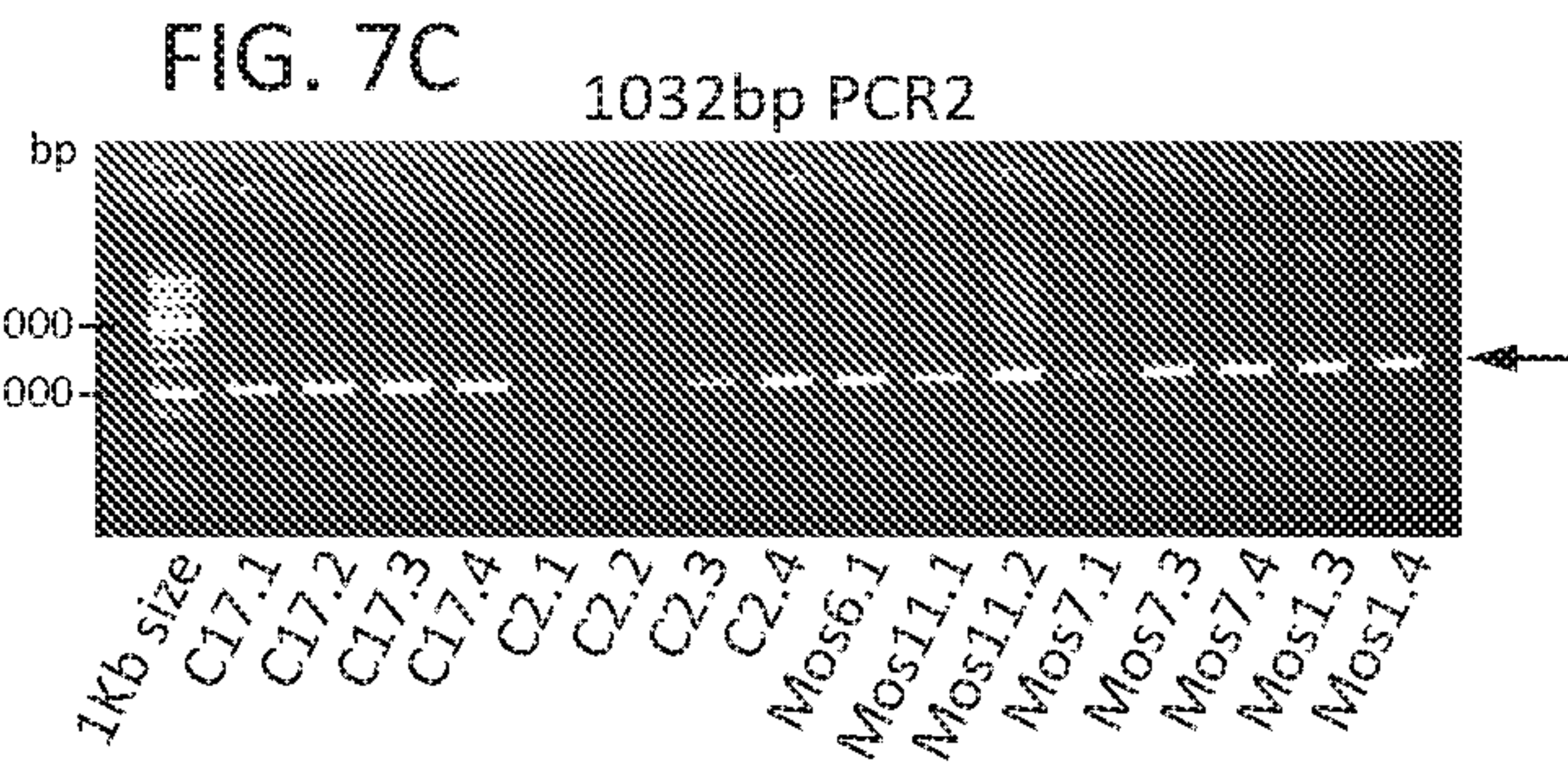
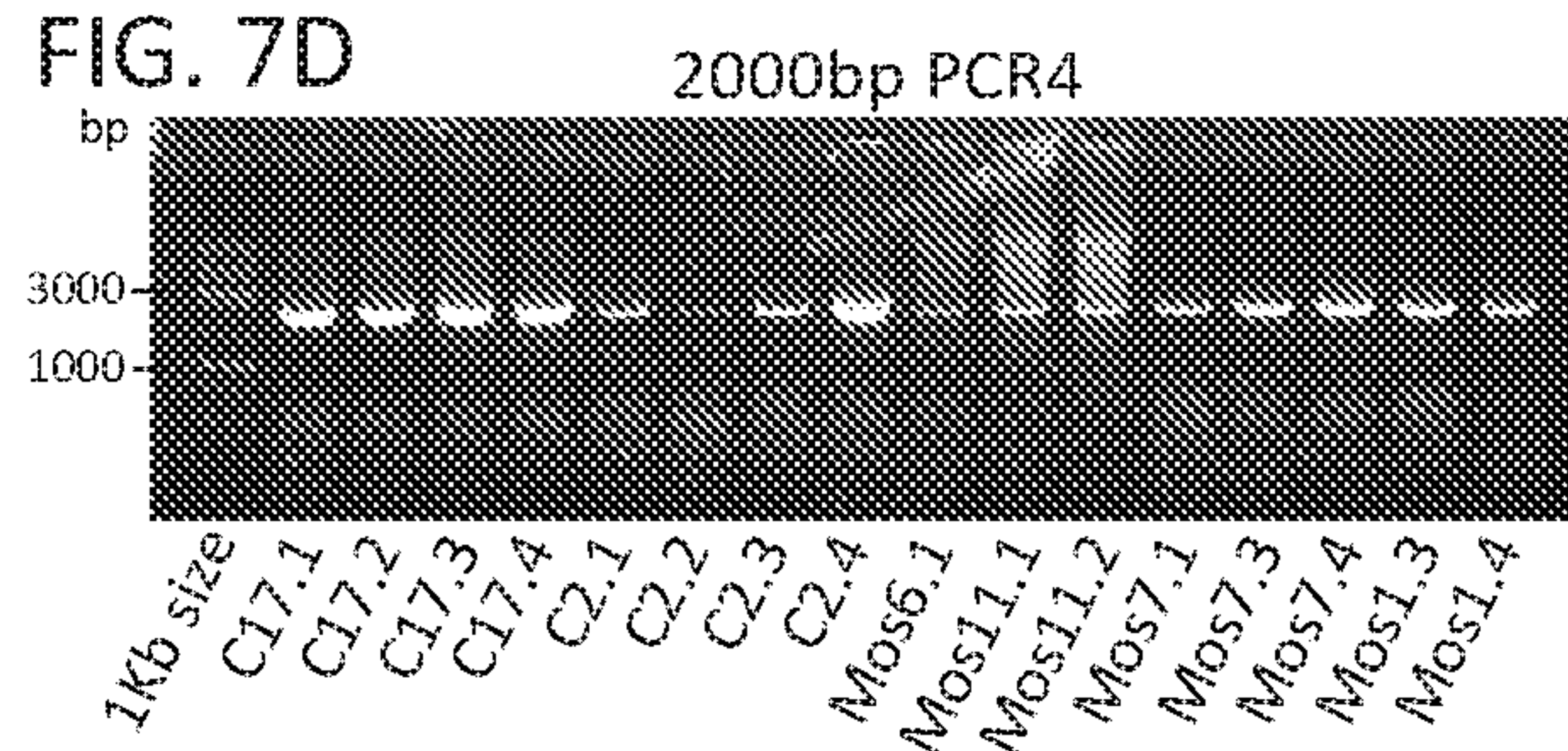
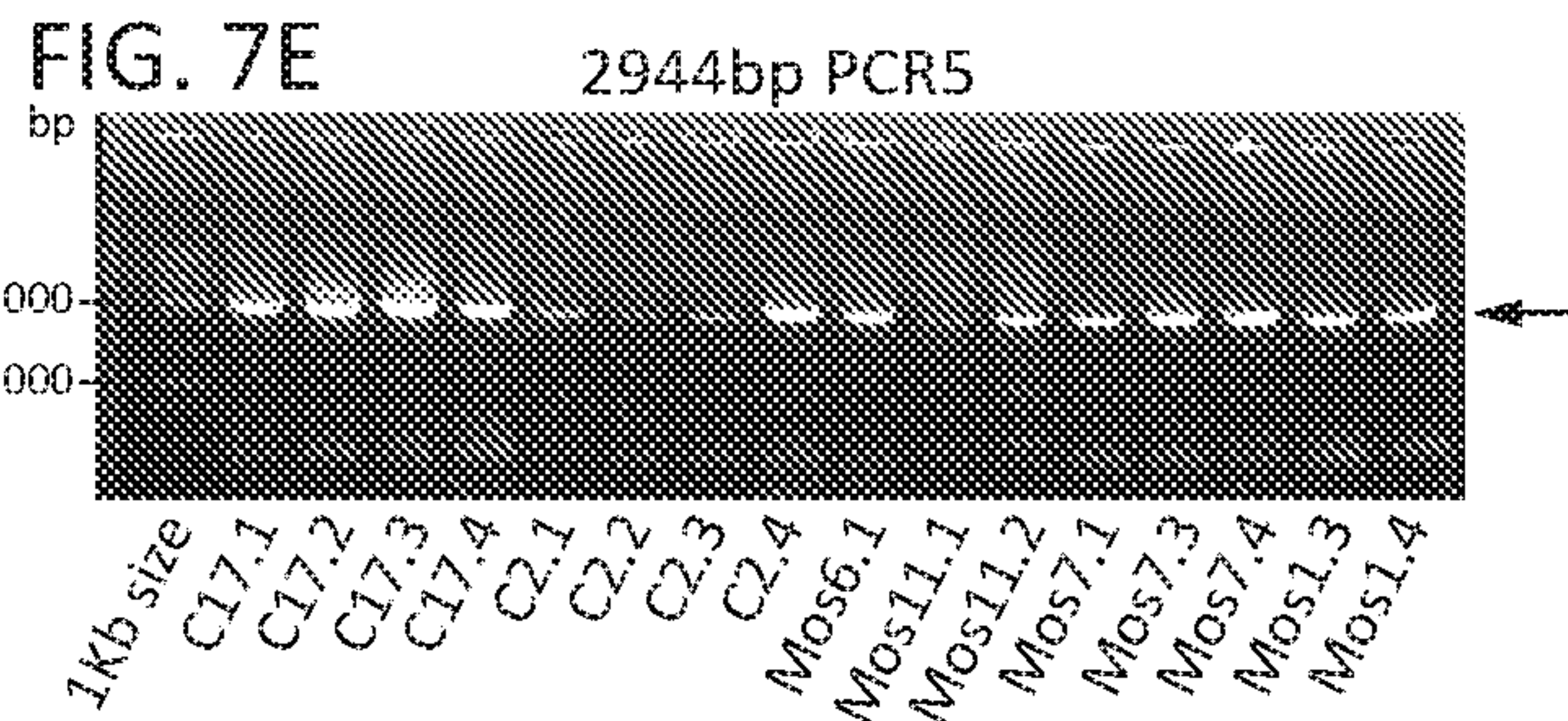
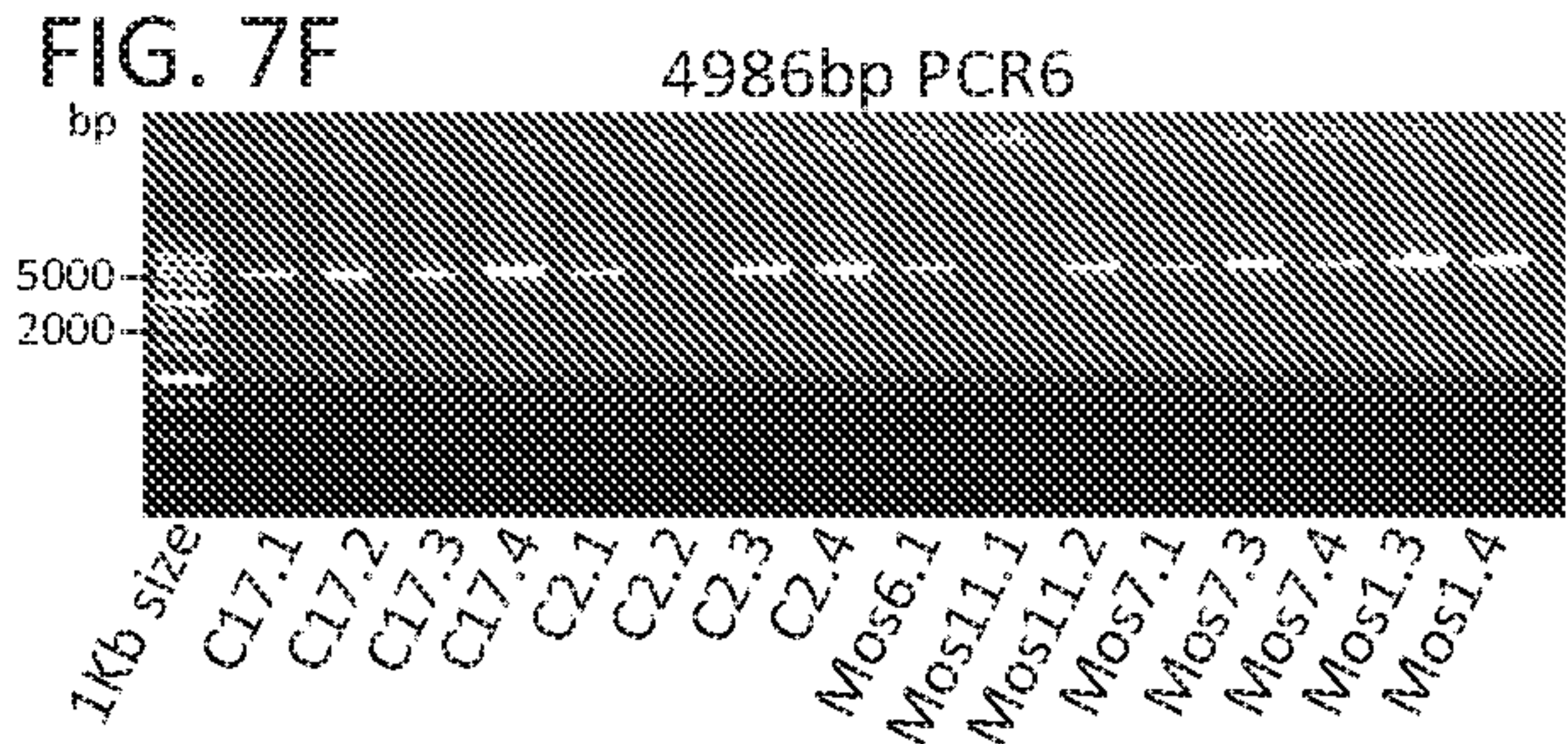
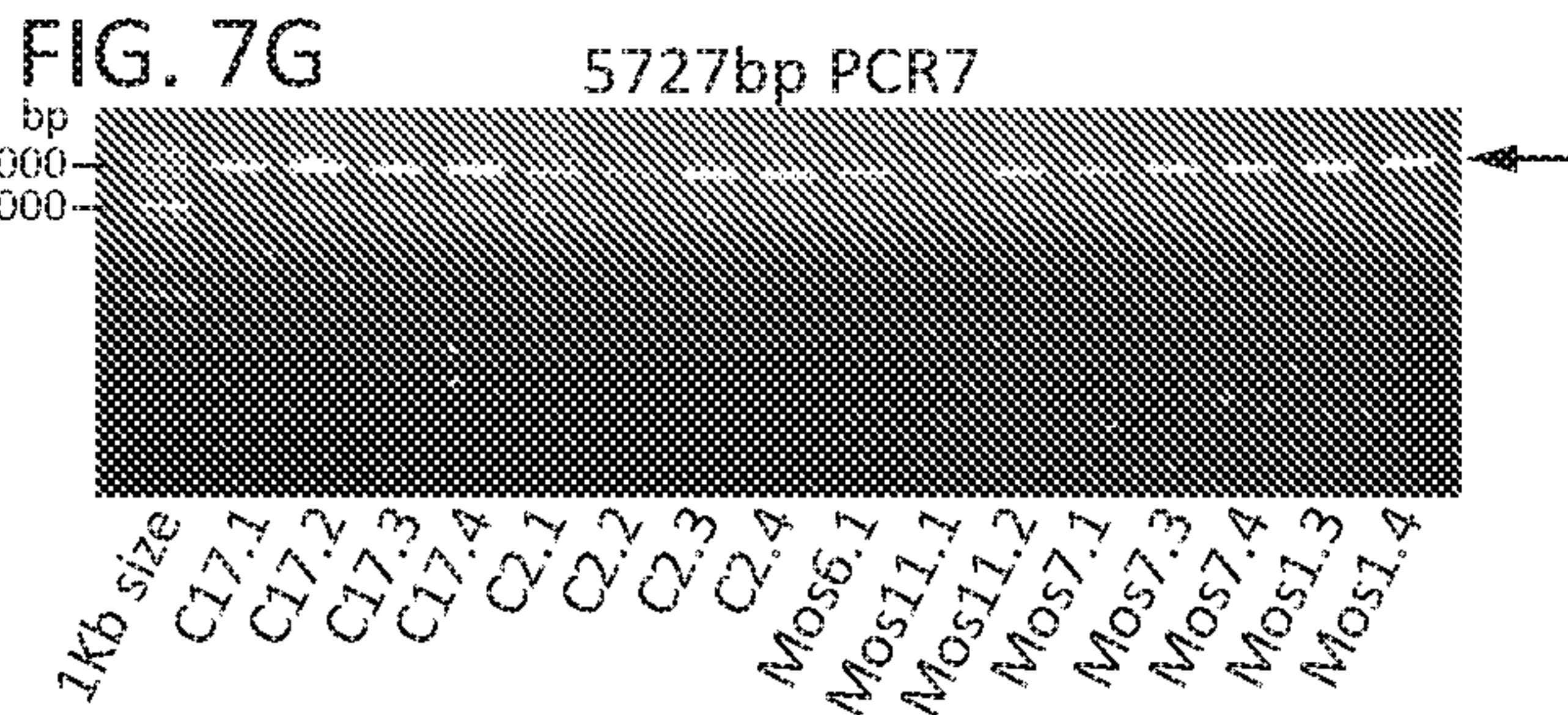
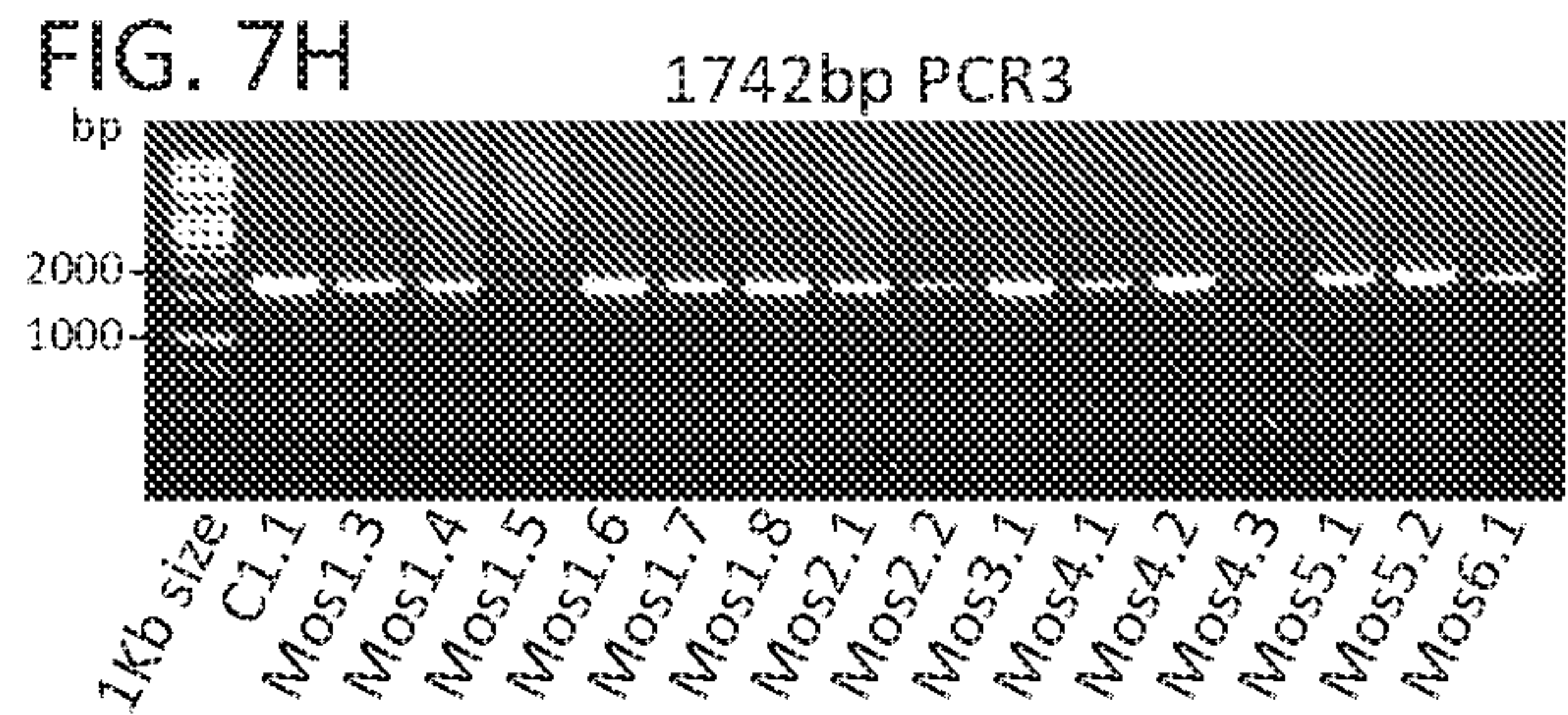
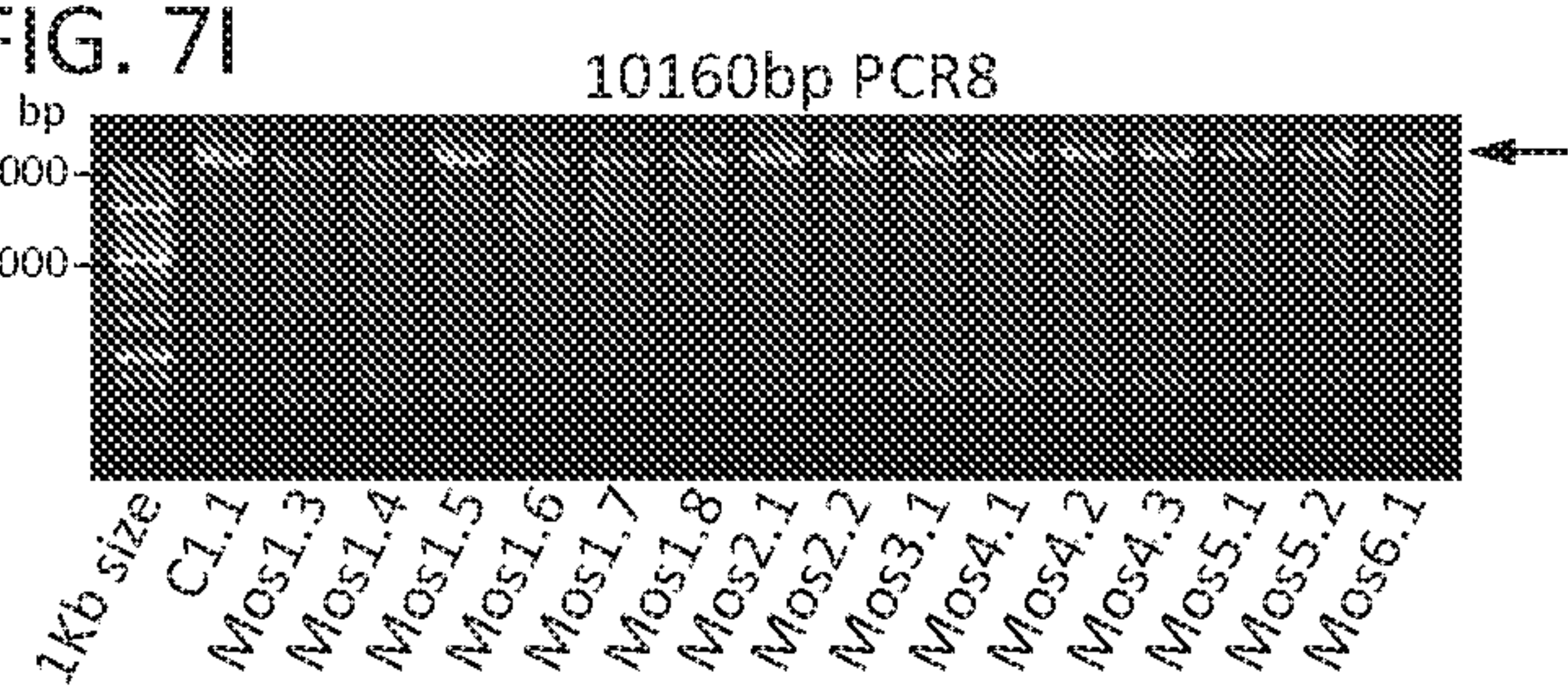
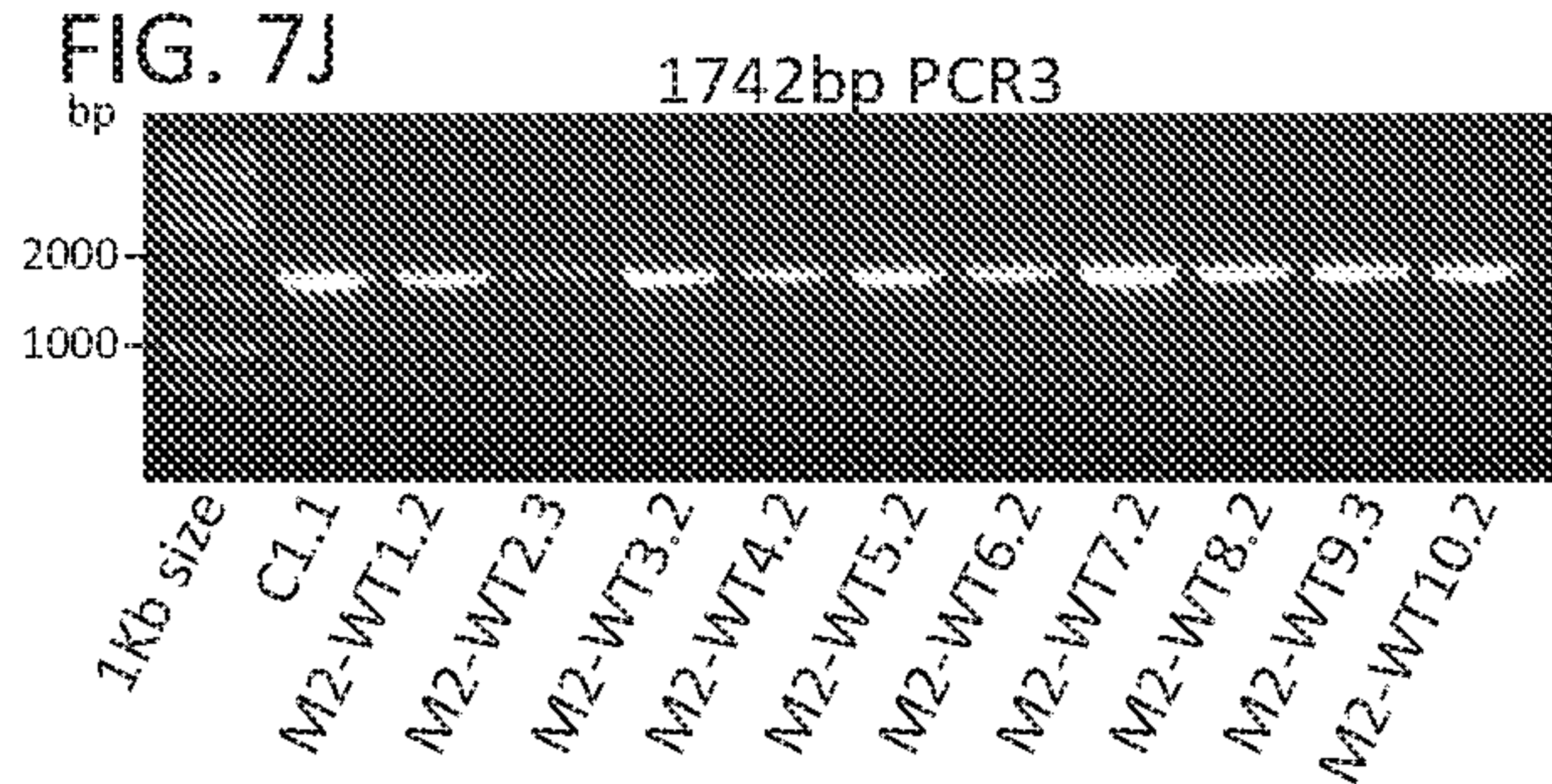
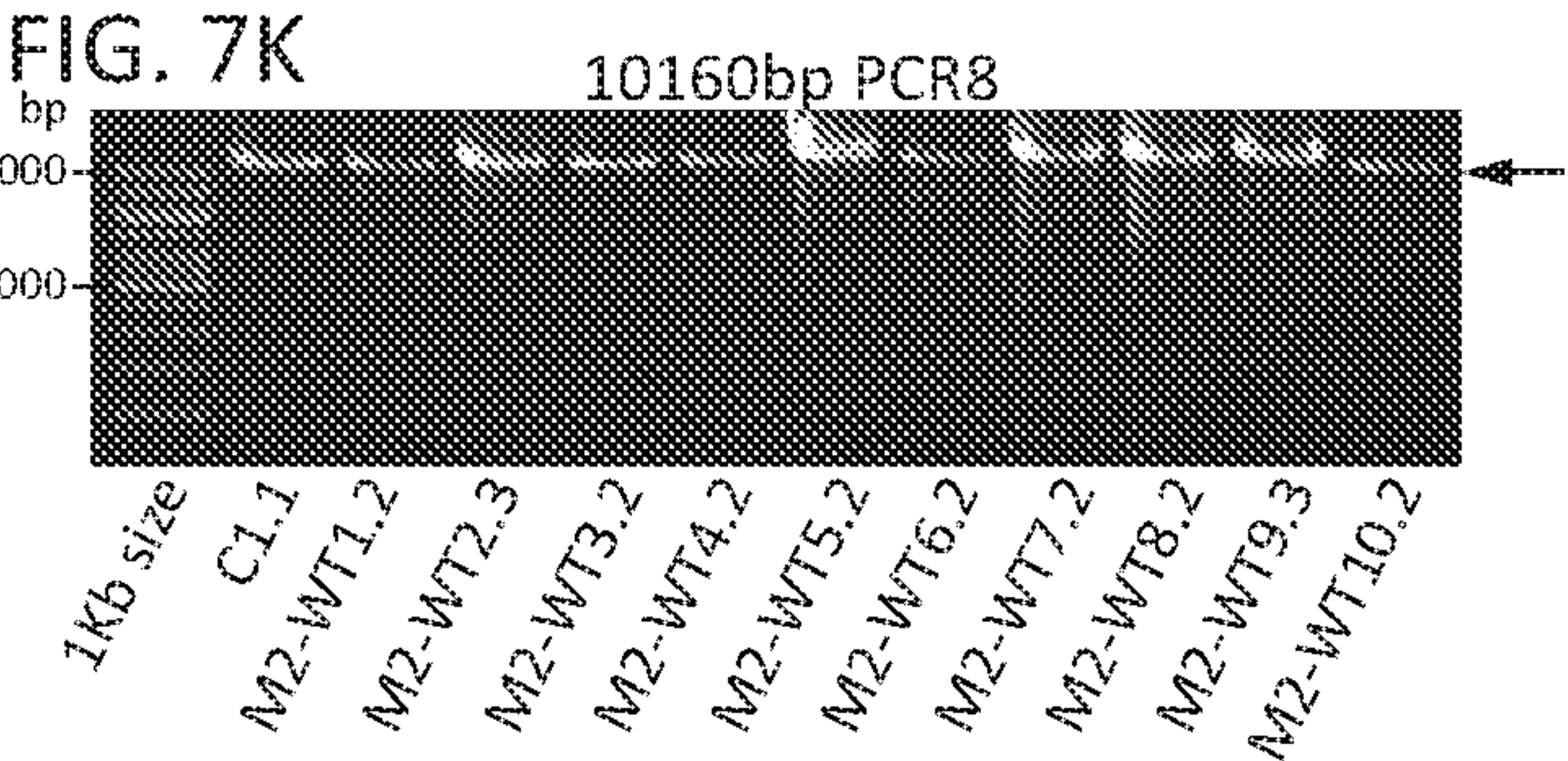


FIG 8A

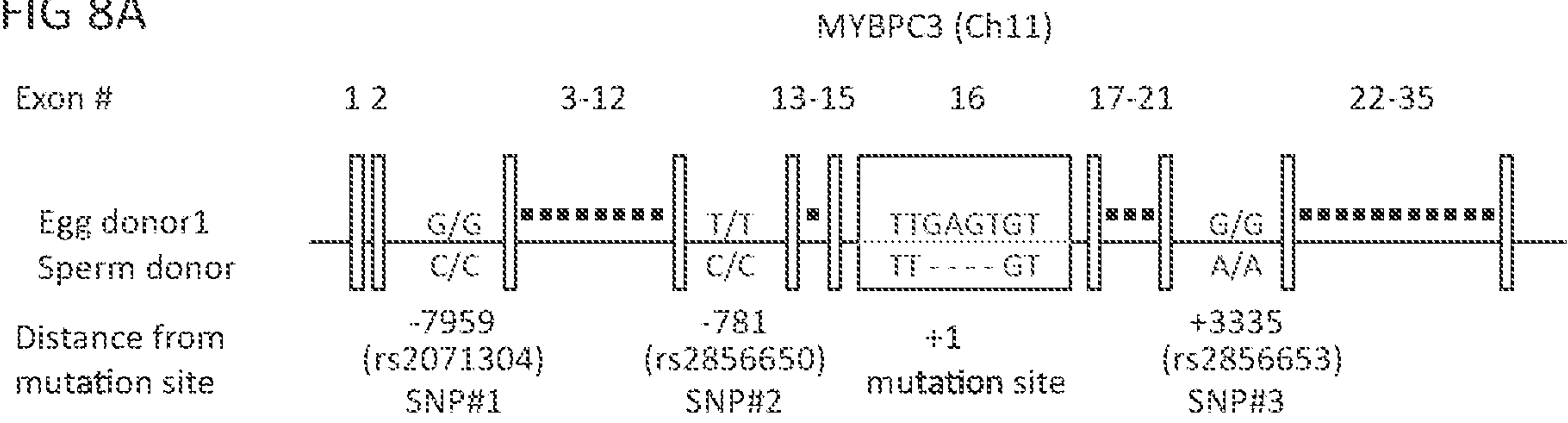


FIG 8B

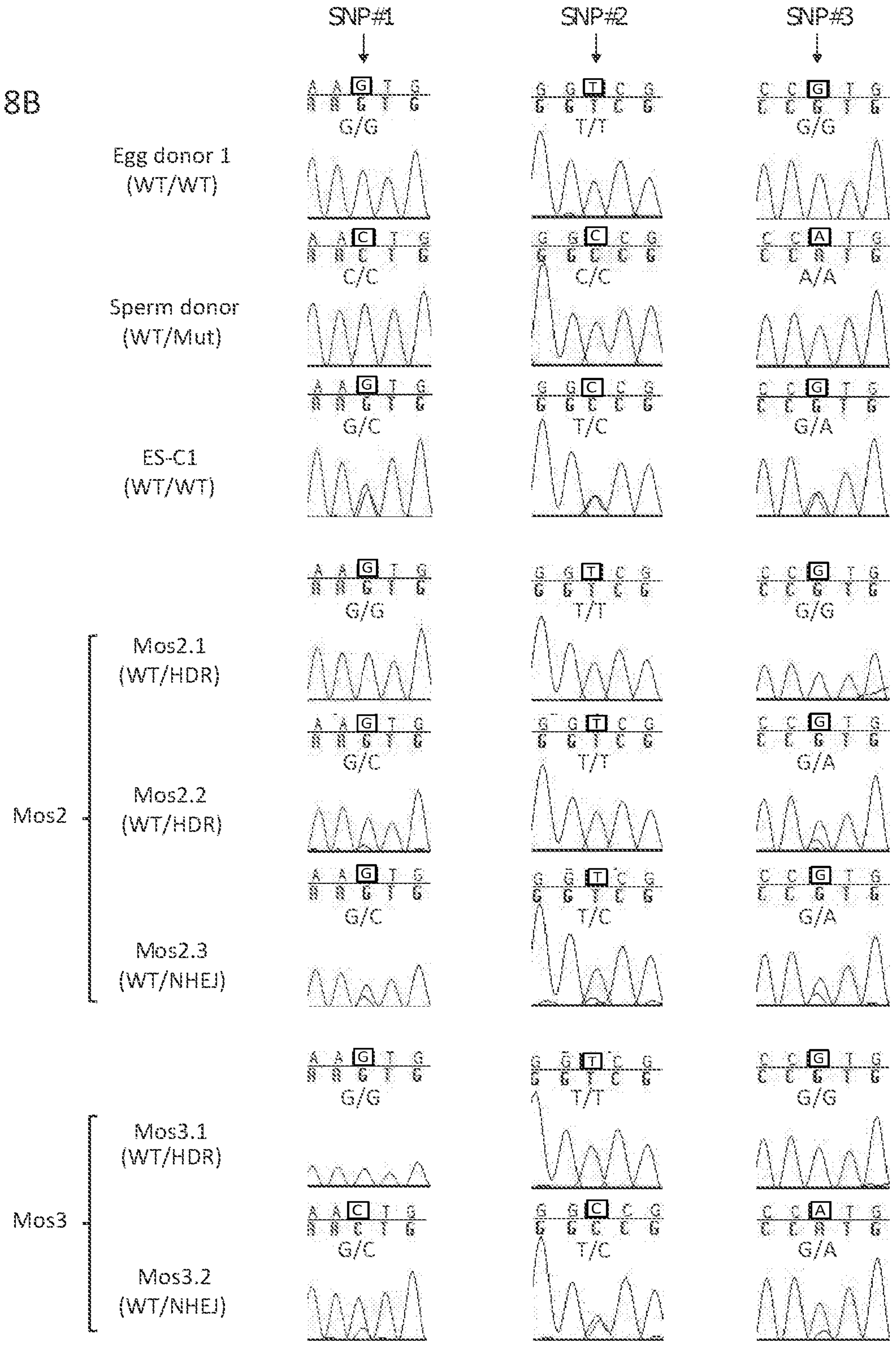
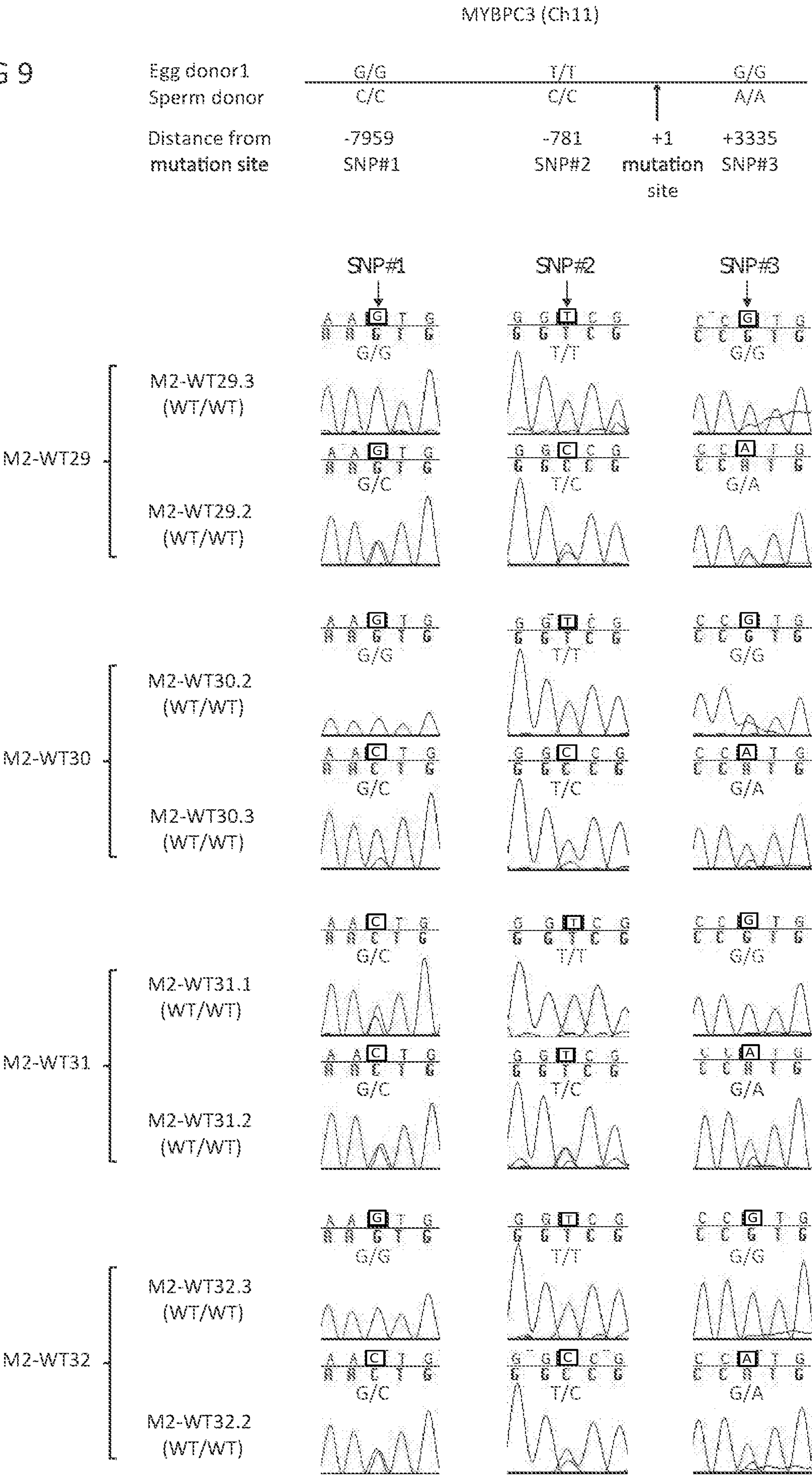


FIG 9



Fertilization and preimplantation development of CRISPR-Cas9-injected oocytes

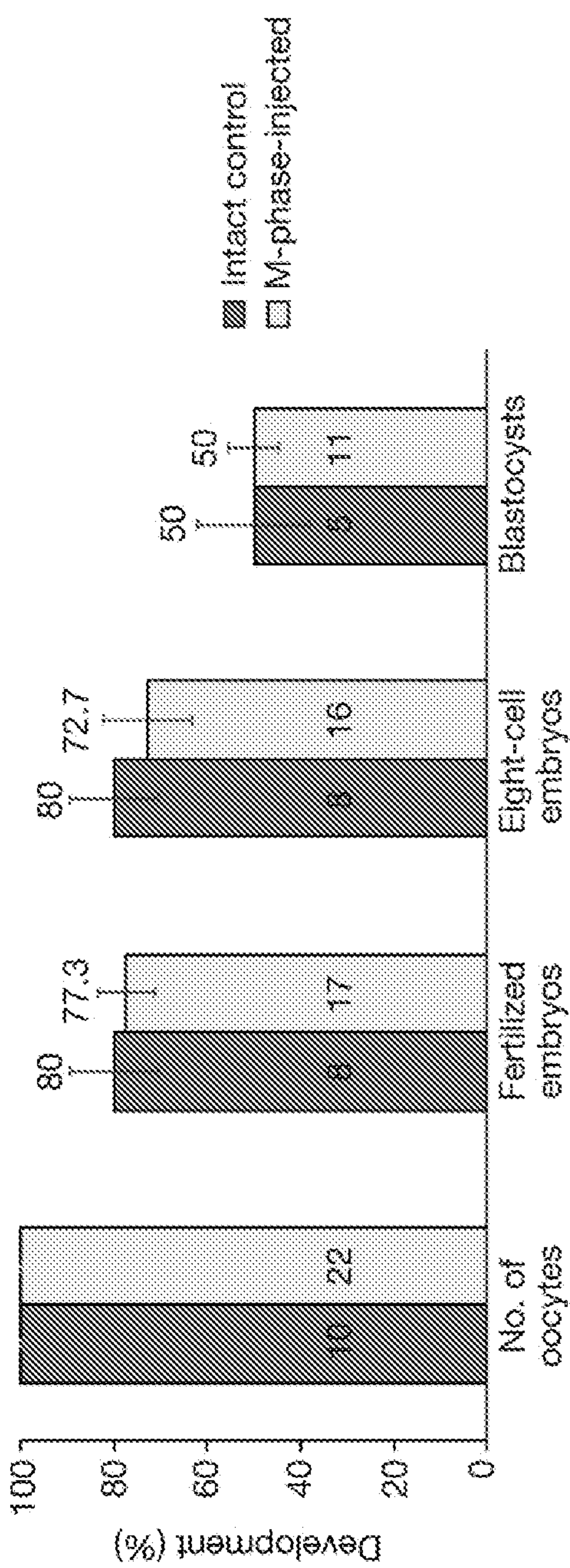


**FIG. 10B**

