

Supplementary Data

SUPPLEMENTARY TABLE S1. PCR PRIMERS USED FOR THE CHARACTERIZATION OF BUFFALO EMBRYONIC STEM CELLS (REVERSE TRANSCRIPTASE PCR)

| <i>Gene</i> | <i>Sequence</i> | <i>Annealing temperature</i> | <i>Base pairs (bp)</i> | <i>Accession no.</i> |
|---------------------|---|------------------------------|------------------------|----------------------|
| <i>OCT4</i> | F, 5'-CGCCCTATGACTTGTGTGGA-3' R, 5'-TCGGCTCCAGCTTCTCCT T-3' | 58 | 201 | GU997625.1 |
| <i>SOX2</i> | F, 5'-ATGGGCTCGGTGGTGAAGT-3' R, 5'-GCTCTGGTAGTGCTGGGACA-3' | 59 | 183 | GQ853881.1 |
| <i>NANOG</i> | F, 5'-CCGAAGCATCCAACCTAGG-3' R, 5'-GAGACAGTGTCCGTGTCGAG-3' | 60 | 100 | NM_001025344.1 |
| <i>C-MYC</i> | F, 5'-CTCCTCACAGCCCGTTAGTC-3' R, 5'-ATTGCGGTTGTTGCCTATC-3' | 53 | 156 | GU296437.1 |
| <i>REX-1</i> | F, 5'-CAGCTGCCATAGGCTCTACC-3' R, 5'-GTCTGGCCTGACAAAGGTGT-3' | 55 | 239 | XM_001255545 |
| <i>NUCLEOSTEMIN</i> | F, 5'-AGAATCGGATGAGCTGTTGG-3' R, 5'-ATCAGCATTGCCAGAGAGGT-3' | 60 | 400 | NM_001034307.1 |
| <i>STAT3</i> | F, 5'-GCGAAGAATCAAGCAGTCC-3' R, 5'-CCAGGGCAGTAAGCATCTGT-3' | 60 | 383 | DQ487026 |
| <i>FOXD3</i> | F, 5'-CTATTCGTACATCGCGCTCA-3' R, 5'-GGGTCCAGGGTCCAGTAGTT-3' | 58 | 228 | ENSBTAG00000008501 |
| <i>TELOMERASE</i> | F- 5'-GACTTCCAGCCGTACCTGAG-3' R- 5'- GATCCCCTGACACTGGATGT-3' | 58 | 192 | NM_001046242.1 |

F, forward; R, reverse; RT-PCR, reverse transcriptase polymerase chain reaction.

SUPPLEMENTARY TABLE S2. PCR PRIMERS USED FOR THE CHARACTERIZATION OF EMBRYOID BODIES

| <i>Gene</i> | <i>Sequence</i> | <i>Annealing temperature</i> | <i>Base pairs (bp)</i> | <i>Accession no.</i> |
|----------------------|--|------------------------------|------------------------|--------------------------------|
| 1. Ectoderm | | | | |
| <i>NF-68</i> | F, 5'-AGGAAGATGCTGAGGAAGCA-3' R, 5'-GTTGACCTGATTTCCGGGAGA-3' | 60 | 183 | NM174121 |
| <i>CYTOKERATIN-8</i> | F, 5'-GTCTCCAGGCTGAGATCGAG-3' R, 5'-TCCAGCAGCTTCCTGTAGGT-3' | 58 | 241 | BC103339.1 |
| 2. Mesoderm | | | | |
| <i>ASA</i> | F, 5'-GGCATCATCACCAACTGGGA-3' R, 5'-TTGCCGATGGTGATGACCTG-3' | 55 | 536 | Sritanaudo-mchai et al. (2007) |
| <i>BMP-4</i> | F, 5'-GGTAACCGAATGCTGATGGT-3' R, 5'-CTGGGATGTTCTCCAGATGT-3' | 55 | 385 | NM001045877.1 |
| <i>MSX1</i> | F, 5'- GGACTCCTCAAACCTGCCAGA-3' R, 5'-TACTGCTTCTGGCGGAACCT-3' | 58 | 224 | NM_174798 |
| 3. Endoderm | | | | |
| <i>AFP</i> | F, 5'-TCTTCCCCATGTTCTTCAGG-3' R, 5'-TTTCACGGCAAATTTCTTCC-3' | 55 | 205 | NM_001034262 |
| <i>HNF4</i> | F, 5'-ACATCCCAGCCTTCTGTGAG-3' R, 5'-TCGTCAATCTGCAGCTCTTG-3' | 58 | 238 | AF250028 |
| <i>GATA4</i> | F, 5'-CGGAAAGAGGGGATTCAAAC-3' R, 5'-ATCTCCTCACTGCTGCTGGT-3' | 58 | 152 | DQ487031 |

PCR, polymerase chain reaction; F, forward; R, reverse.

SUPPLEMENTARY TABLE S3. BUFFALO-SPECIFIC REAL-TIME PRIMERS

| <i>Gene</i> | <i>Sequence</i> | <i>Annealing temperature</i> | <i>Base pairs (bp)</i> | <i>Accession no.</i> |
|-------------|---|------------------------------|------------------------|----------------------|
| SOX2 | F, 5'-CGTGGTTACCTCTTCTTCC-3' R-5' CTGGTAGTGCTGGGACAT-3' | 60 | 139 | GQ85388 |
| OCT 4 | F, 5'-TTGCAGCTCAGTTTCAAG-3' R, 5'-GTTGTTGTCAGCTTCCTC-3' | 54 | 75 | EU926737 |
| NANOG | F, 5'-CCGAAGCATCCA ACTCTAGG-3' R, 5'-GAGACAGTGTC CGTGTGCGAG-3' | 60 | 100 | NM_001025344.1 |
| GAPDH | F, 5'-TCAAGAAGGTGGTGAAGCAG-3' R, 5'-CCCAGCATCGAAGGTAGAAG-3' | 57 | 121 | GU324291.1 |

F, forward; R, reverse.