Chordoma Foundation Cell Line Validation

U-CH11R

Cell Line Phenotype and Expression
Analysis Report

June 19, 2017



Cell Line Receiving

| Format Received | Date Received | Condition | Quantity | Passage | Initial Cell Count | Initial Cell Viability |
|-----------------|------------------|-----------|----------|---------|----------------------|------------------------|
| | | | | | | |
| Frozen Vials | January 12, 2017 | N/A | 3 | p (0) | 7.98x10 ⁵ | 68% |

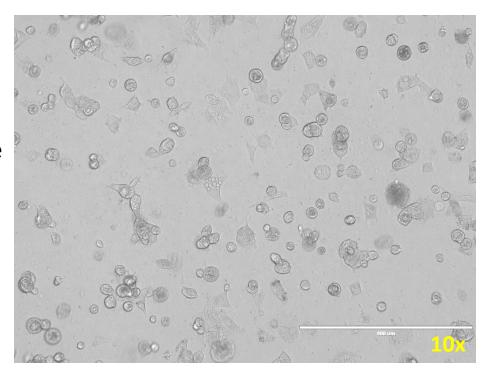
Growth Conditions

Media:

4:1 IMDM/RPMI + 10% FBS + I-Glutamine + Pen/Strep

→Passage when ~80-90% confluent (no more than 1:2)

→ Change media every 5-7 days

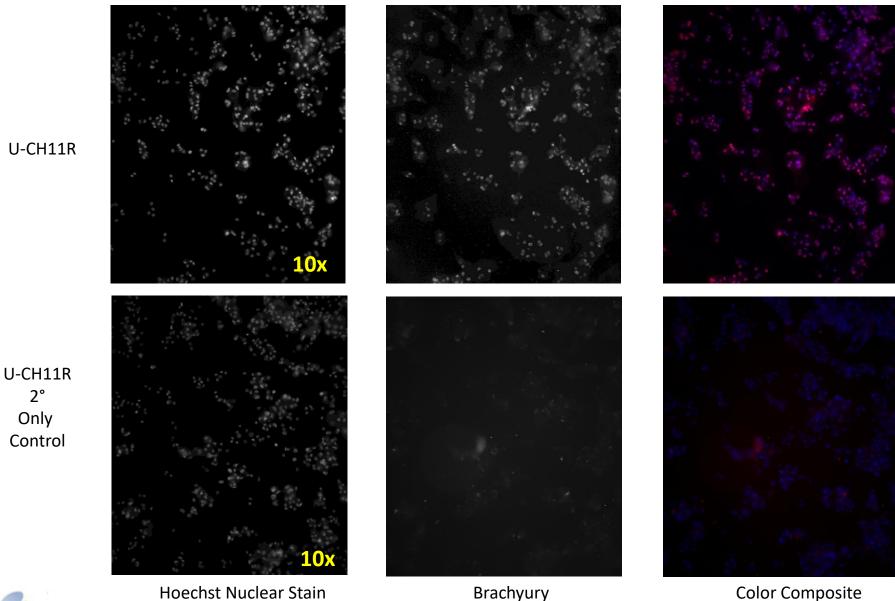


U-CH11R 24hrs post thaw.



Cell Line Immunofluorescence Validation

U-CH11R Anti-Brachyury versus Secondary-only Negative Control

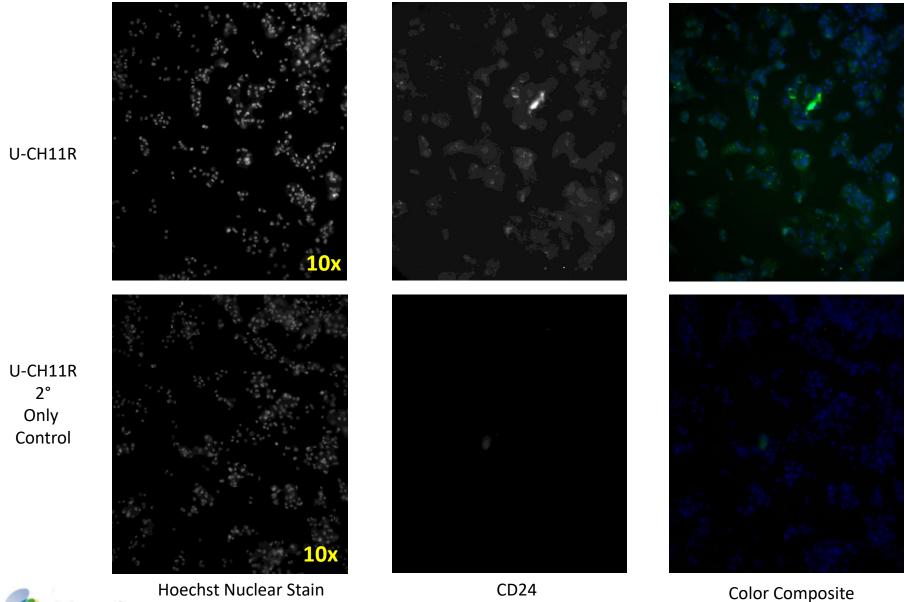




Cell Line Immunofluorescence Validation

U-CH11R Anti-CD24 versus Secondary-only Negative Control

VALA SCIENCES



Cell Line PCR Validation

Relative quantification of Brachyury and CD24 gene in U-CH11R cell line

Brachury, Homo Sample Neg. Error sapiens Pos. Error UCH-2 (+ control) 1.000000 0.076062 0.082324 HeLa (- control) 0.000820 0.000052 0.000055 UCH-11R 6.992499 0.573949 0.625272

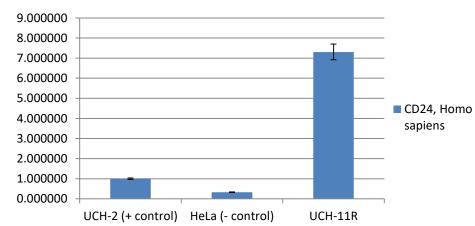
8.000000 7.000000 6.000000 4.000000 3.000000 1.000000 0.000000

Brachury, Homo sapiens

CD24, Homo sapiens

UCH-11R

HeLa (- control)



| | CD24, Homo | | |
|-------------------|----------------|------------|------------|
| <u>Sample</u> | <u>sapiens</u> | Neg. Error | Pos. Error |
| UCH-2 (+ control) | 1.000000 | 0.032074 | 0.033137 |
| HeLa (- control) | 0.326105 | 0.017748 | 0.018769 |
| UCH-11R | 7.299600 | 0.382430 | 0.403574 |



Tables and associated graphs depict relative quantification of N (top table and graph) and Z (bottom table and graph) gene expression/RNA in TEST cell samples. Gene expression across all assessed lines is set relative to the positive control sample, which is et at 1. The X-axis represents cell lines assessed and the Y-axis represents gene expression relative to positive control.

UCH-2 (+

control)

Cell Line Validation Results

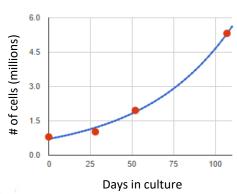
Results summary report of U-CH11R

| TEST | SPECIFICATION | RESULTS |
|----------------|-------------------------------|---------|
| Cell Growth | Immortilized | Pass |
| STR Analysis | Human, unique | Pass |
| IF Validation | Signal in nucleus | Pass |
| PCR Validation | Expressing Brachyury and CD24 | Pass |

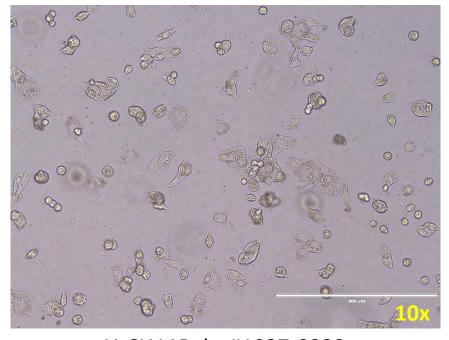
Cell lot generated

| Stock Lot# | 1027-032 |
|----------------|----------|
| Cells per vial | 500k |
| Lot Viability | 94% |
| Passages | 5 |

<u>Cell Line Growth:</u> Cell doubling time= 35 days



Cell growth rates were calculated from an actively growing culture for four passages. Growth rates will likely be slower when calculated from a fresh thaw.



U-CH11R, lot#1027-032S

