Cell Lines from Dr. Guoshun Wang

Dr. Guoshun Wang has produced multiple cell lines that provide investigators with powerful research tools for studying diseases, such as cystic fibrosis and cancer, as well as cell lines for drug screening.

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Inventor
Guoshun Wang, DVM, PhD

Field
Cystic Fibrosis; Gene & Stem Cell Therapy; Alcohol-Directed anti-inflammation and immunosuppression

Technology
Cell Lines & Research Tools

Stage of Development
Published Cell Lines

Status
Available for Distribution

List of Cell Lines:

1) F508del-CFTR-293T Cells

- 293T cell line with double allele phenylalanine deletion in the CFTR gene at Position 508
- Derived from the parental 293T human embryonic kidney cell line, which is easy to transfect and can be used to test gene editing and study mutant CFTR expression and regulation.

2) I507del/F508del-CFTR HL-60 Cells

- HL-60 cell line with single amino acid deletion in the CFTR gene at Position 507 on one allele and Position 508 on another allele
- Derived from the parent HL-60 promyelocytic cell line, a precursor cell line for neutrophils and monocytes. These compound mutations are unique. This cell line can be used to study CFTR function in innate immunity

3) GILZ-knockdown Mono Mac-6 Cells

- Mono Mac-6 cell line with permanent knockdown of glucocorticoid-induced leucine zipper gene, Mono-Mac6- siGILZ), or the corresponding control cell line (Mono-Mac6- siCNTL)
- Derived from Mono Mac-6 cell line, a human monocyte cell line, which has permanent GILZ gene knockdown (no GILZ protein expression) via lentiviral gene transfer. The control line is siCNTL with normal GILZ gene expression.

Ng HP, et al., **Wang G**. (2017) *Front Immunol.* doi: 10.3389/fimmu.2017.00661. PMID: 28638383

4) GILZ-knockdown A549 Cell line

- Permanent knockdown of glucocorticoid-induced leucine zipper gene (A549-siGILZ) and the corresponding control cell line (A549-siCNTL)
- A549 cells are human airway epithelial cells. The knockdown cell line has no GILZ protein expression, which can be used study GILZ function in airway cells.

Gomez M, et al., **Wang G**. (2010) *J Immunol*. doi: 10.4049/jimmunol.0903521. PMID: 20382889

5) GR-knockout Mono Mac-6 Cells

- Mono Mac-6 cell line with double allele glucocorticoid receptor (GR) gene knockout
- Mono-Mac-6 cells without GR gene expression. This is a gene knockout cell line.

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