

Tau Consortium iPSC Line Collection

Reprogramming of Human Fibroblasts

Reprogramming:

- Fibroblasts were transduced with Sendai virus containing Oct3/4, Sox2, Klf4, cMyc (CytoTune kit)
- iPSC were manually isolated and transferred to Matrigel
- Independent clones were maintained on Matrigel and expanded
- Clones free of spontaneous differentiation were frozen down and characterized

Characterization includes:

- Karyotyping
- Genotyping to confirm the mutation
- Pluripotent markers (immunocytochemistry and qPCR of iPSC clones)
- Sendai virus (qPCR to confirm Sendai virus absent from culture)
- Formation of embryoid bodies (immunocytochemistry and qPCR of iPSC clones)
- DNA fingerprinting to confirm cell identify
- Mycoplasma

iPSC Characterization

Tau Consortium iPSC clones meet the following criteria:

- Maintain pluripotency with less than 5% spontaneous differentiation
- Produce a normal karyotype
- Genotyped to confirm mutation
- Express markers of pluripotency OCT4, Nanog, SOX2, Tra-1-60, SSEA-4
- Spontaneously differentiated into cells found in the 3 major germ layers
- Mycoplasma negative

TC iPSC Line Collection

The Consortium iPSC bank is a collection of patient derived lines containing several MAPT mutations

Each donor represents an independent iPSC line and there are at least 2 clones per donor available

| | | | Available | | |
|---|------------|-----------|-----------|---------------|------|
| Mutation | Family (n) | Donor (n) | iPSC | Isogenic Pair | NPC* |
| A152T | 5 | 7 | Y | | |
| R406W Het | 3 | 3 | Y | Y | Y |
| R406W Homo | 1 | 1 | Y | | Y |
| V337M | 2 | 3 | Y | Y | Y |
| IVS10+16 | 2 | 2 | | Y | Y |
| P301L | 3 | 3 | | Y | |
| S305I | 1 | 1 | | | |
| Matched controls available upon request | | | | | |

*NPCs available upon request

For more information on these and other mutations as well as supporting documentation, please contact the Project Manager, Khadijah Onanuga Ph.D., PMP (khadijahonanuga@neuralsci.org).

Process for Requesting Lines

All requests will be reviewed by the Tau Consortium's Stem Cell Group and approvals issued within 10 business days.

Please submit the following:

- Request form
- CV/Biosketch
- Research summary: specific aims, background, preliminary data, sample size justification

Upon approval, the required material transfer agreements must be signed prior to distribution. Please follow this link for more about on the collection's scope, aim and additional information on the procedures obtaining lines.

Contact

- Project Manager, Khadijah Onanuga Ph.D., PMP (khadijahonanuga@neuralsci.org)
- Please follow <http://neuralsci.org/tau> for the documents outlined above

Cost

- Please contact the Project Manager for pricing.