

**THE ESTABLISHMENT OF A CONDITIONALLY IMMORTALIZED
CELL LINE WITH A NEURONAL PHENOTYPE DERIVED FROM THE
BRAIN OF SV40 TSA58 TRANSGENIC MOUSE EMBRYOS**

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We have established a cell line derived from the brain of 16-day-old embryos of the SV40 tsA58 transgenic mouse. The parental cell line and a subline derived from this line were denoted as MB-G and MB-10, respectively. Cells of both lines were intensely immunostained by the monoclonal antibody anti-class III beta-tubulin, an early neuronal marker, as observed using confocal microscopy. RT-PCR revealed that these cells express mRNAs encoding neuron-specific proteins: class III beta-tubulin, microtubule associated protein 2 (MAP2), and neurofilaments (NF-L, NF-M, NF-H), while there was no RT-PCR amplifications of the transcript encoding the astrocyte-specific glial fibrillary acidic protein (GFAP). Furthermore, we showed that phorbol ester treatment of MB-10 cells increases the transcription of genes encoding NF-H and the growth associated protein 43 (Gap-43). In conclusion, this study demonstrates that conditionally immortalized cell lines derived from mouse embryos express the components of the neuronal cytoskeleton, and that these lines can be used to study the expression of genes involved in neuronal differentiation induced *in vitro*.