



Human Embryonic Progenitor Cell Line 7SMO032

Cat No. ES-278

The clonal human embryonic progenitor cell line 7SMO032 was derived from the registered parental hES cell line H9 (WA09) as described (West et al, 2008). It displays transcripts for the metabotropic glutamate receptor *GRM1*, the nicotinic cholinergic receptor *CHRNA3*, the transcription factors *LHX1* and *MSX2*, and the genes *BBOX1*, *DLK1*, and the secreted proteins *BMP5*, *EGFL6* (normally expressed in brain and lung tumors and fetal tissues, but not adult tissues (Leung et al, 1999), and

MMP10, and is negative for *HOX* gene expression. It is weakly chondrogenic when differentiated with the kit ES-K44 and expresses *COL2A1* and *LECT1* along with other genes consistent with chondrogenesis.

Positive mRNA Markers: *MSX2*, *BBOX1*, *GRM1*, *CHRNA3*, *DLK1*, *BMP5*, *EGFL6*

Product Information:

Derivation: Progenitor line 7SMO032 was derived from the registered parental human ES cell line H9 (WA09) as previously described (West, M.D. et al, 2008).

Cell Number: Vial contains >500,000 cells cryopreserved in 1 ml of FBS with 10% DMSO.

Recommended Growth Medium: ES-NC128

Recommended Culture Conditions: Cells should be plated onto tissue culture grade polystyrene plastic coated with 0.1% gelatin. Following rapid thawing and slow dilution in the final culture medium, the initial seeding density should be approximately 20,000 cells/cm². Cells should be maintained at 37°C in a humidified incubator preferably with 5% CO₂ and 5% oxygen with media change at least twice per week. Upon reaching confluence they should be split 1:3 for routine maintenance. Note: confluence for more than two days may lead to terminal differentiation.

Available Differentiation Kits:

- **Differentiation Kit:** Cat No. ES-K44



Population Doubling Time: Approximately 40 hours.

Population Doubling: Progenitor line 7SMOO32 is sold at passage 10 (original clonal isolate in confluent 1.9 cm² well being P1), which corresponds to approximately 12.5 doublings since the first 1.9 cm² well and approximately 28.5 doublings since its original clonal plating. The line displays a finite lifespan *in vitro*. When used properly this product should scale for a minimum of 10 population doublings.

Quality Control:

Sterility: The line is negative for bacteria, mycoplasma, and fungal contamination.

Thaw Test Result: >70% viability, >30% attachment, growth to confluence, and maintenance of original morphologic appearance.

Certificates of Analysis: Available on request.

Restrictions: These cells are provided for research purposes only. They are not for human use, and may not be used for commercial purposes. The user is responsible for proper handling upon receipt.

Technical Assistance: Please contact a representative at ES Cell International (support@biotimemail.com or (510) 521-3390) for technical assistance.

Cat Number	Description	List Price
ES-278	7SMOO32 Embryonic Progenitor Cell Line	\$2,800.00
ES-NC128	ESpan Cell Culture Medium Kit (with supplements)	145.00
ES-K44	Differentiation Kit	295.00

References:

Yeung G, Mulero JJ, Berntsen RP, Loeb DB, Drmanac R, Ford JE. 1999. Cloning of a novel epidermal growth factor repeat containing gene EGFL6: expressed in tumor and fetal tissues. *Genomics*. 62(2):304-7.

West, M.D., Sargent, R.G., Long, J., Brown, C., Chu, J-S., Kessler, S., Derugin, N., Sampathkumar, J., Burrows, C., Vaziri, H., Williams, R., Chapman, K.B., Larocca, D., Loring, J.F., and Murai, J. 2008. The ACTCellerate Initiative: large-scale combinatorial cloning of novel human embryonic stem cell derivatives. *Reg. Med.* 3(3): 287-308.

**Call ES Cell International technical service and sales at 510.521.3390
or visit <http://shop.biotimeinc.com> for more information**