

TECHNICAL DATA SHEET

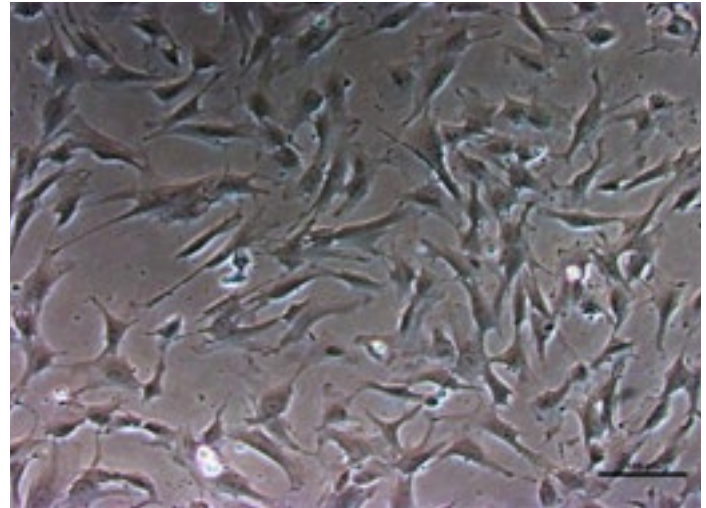
PureStem[®] E15, Meso-prx/latp Progenitor

Catalog Number: ES- 98

OVERVIEW

PureStem E15, Meso-prx/latp Progenitor expresses chondrogenic markers (SOX9, VCAN, COL6A2, COL1A1) and markers of axial and appendicular derived mesenchymal cells (TFAP2A, CDH2, SIX1).

PureStem Progenitor E68 was derived from the parental hES cell line MA03 as described (West, M.D. et al, 2008).



NOTES ON NOMENCLATURE

PureStem progenitors are named by embryologist and cell biologists based on fate mapping the progenitors' undifferentiated and differentiated gene expression using annotated genetic expression interpretations found on LifeMap Discovery[™] and classic embryology terminology. The following standardized system is used by BioTime, Inc. and/or all of its subsidiaries:

Meso (Mesoderm):

cor (chordamesoderm: notochord); **prx** (paraxial or somatic mesoderm: head; somites; skeletal muscle; cartilage & IVD; dermis; tendons; endothelial cells); **int** (Intermediate: kidney; gonads); **latp** (Lateral Plate: circulatory system; body cavity; extra-embryonic tissues; Adipose; limb bones and cartilage)

Ecto (Ectoderm):

surf (surface ectoderm: epidermis; hair; nails; subaccesous glands; olfactory epithelium; mouth (anterior pituitary, tooth enamel, cheek epithelium); lens, cornea)

NCr (Neural Crest):

pns (peripheral nervous system); **end** (endocrine and paraendocrine); **pig** (pigment Cells); **fac** (facial cartilage and bone); **con** (connective tissue and stroma: corneal endothelium and stroma; tooth papille; dermis, smooth muscle, adipose tissue of skin head and neck; connective tissue of salivary, lachrymal, thymus, thyroid, and pituitary glands; connective tissue of smooth muscle in arteries of aortic arch origin)

Endo (Endoderm):

pnc (pancreas); **prs** (prostate); **git** (GI tract); **lvr** (liver); **thy** (thyroid)

PRODUCT INFORMATION

Differentially expressed positive mRNA markers (by microarray):

VCAN, TMEM132D, TFAP2A, TBX15, SOX9, SIX1, PODXL, MAP3K8, KAL1, COL6A2, CDH2, AJAP1

Contents:

Vial contains >500,000 cells cryopreserved in 1 ml of FBS/10% DMSO

Growth Medium:

PureStem™ EPM k01

Part number EM-1001

Differentiation Media:

PureStem™ Chondrogenesis Kit

Part number EM-2001

HyStem-4D™ Chondrogenesis Kit (with HyStem Hydrogel)

Part number EM-2002

Recommended Culture Conditions:

Cells should be plated onto tissue culture grade polystyrene plastic coated with 0.1% gelatin. Following rapid thawing & slow dilution in final culture medium, the initial seeding density should be ~20,000 cells/cm². Cells should be maintained at 37°C in a humidified incubator preferably with 10% CO₂ and 5% oxygen with media change at least twice a week. At confluence, split 1:3 for routine maintenance. Note: confluence for more than 2 days may lead to terminal differentiation.

Population Doubling Time:

Approximately 50 hours.

Population Doubling:

PureStem E15, Meso-prx/latp Progenitor is sold at passage 13 (passage 1: original clonal isolate at confluence in 1.9 cm² well), which corresponds to approximately 16.5 doublings since the first passage and approximately 33 doublings since its original clonal plating. The line is highly proliferative yet displays a finite lifespan in vitro, and when properly maintained may reach > 50 population doublings, however differentiation is tested and guaranteed for up to 15 population doublings after plating from the frozen amp.

Sterility:

The embryonic progenitor is negative for HIV (1,2), HBV, HCV, bacteria, mycoplasma, and fungal contamination.

Thaw Test Result:

>50% viability, >25% attachment, growth to confluence, and maintenance of original morphologic appearance.

Certificates of Analysis:

Available on request.

Restrictions:

Cells are for research use only. They are not for human use, and may not be used for commercial purposes. User is responsible for proper handling upon receipt.

Manufacturer:

BioTime, Inc.

PRODUCT WARRANTY

BioTime, Inc. and/or its subsidiaries warrants its products as set forth in the General Terms and Conditions of Sale found on ESI BIO's website at www.esibio.com/termsandconditions.

DISCLAIMER

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