

TECHNICAL DATA SHEET

PureStem[®] Progenitor ES-198

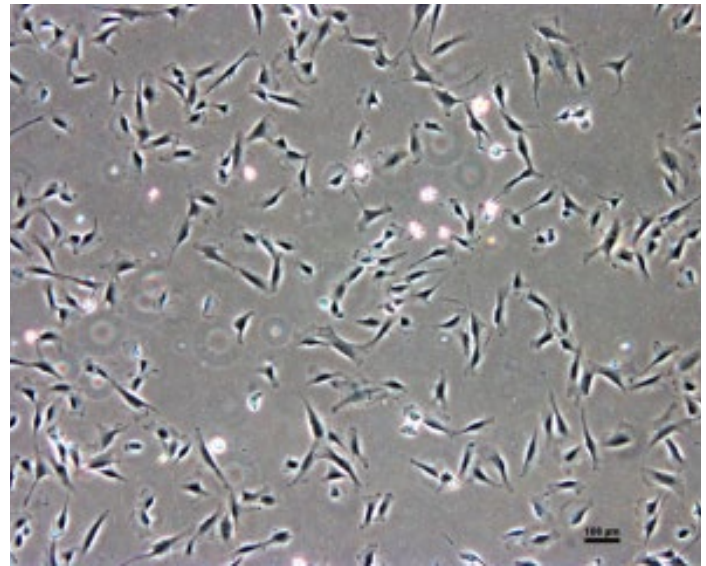
Catalog Number: ES-198

OVERVIEW

PureStem Progenitor ES-198 expresses heparan sulfate 6-O-sulfotransferase 2 (HS6ST2), KIT, the ion channel SLC24A3, EPHA5, HEY2, and PLCH2. The most distal HOX gene expression is HOXC6.

Differentiation in high density culture with bFGF induces the up-regulation of the osteoclast-associated receptor (OSCAR).

PureStem Progenitor ES-198 was derived from the parental hES cell line WA09 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; subacneous 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

Positive mRNA Markers:	HS6ST2, KIT, EPHA5, HEY2, PLCH2
Contents:	Vial contains >500,000 cells cryopreserved in 1 ml of FBS/10% DMSO
Growth Medium:	PureStem™ EPM k01 Part number EM-1001
Differentiation Conditions:	Fourteen day high density culture in presence of 10 µg/ml bFGF. Call your Technical Service Representative for more information.
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/cm ² . Cells should be maintained at 37°C in a humidified incubator preferably with 10% CO ₂ 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 Progenitor ES-198, is sold at passage 12 (the original clonal isolate confluent in a 1.9 cm ² well was P1), which corresponds to approximately 13.5 doublings since the first 1.9 cm ² well and approximately 31.5 doublings since its original clonal plating. The line displays a finite lifespan in vitro, senescing at approximately 70 PD. When used properly this product is guaranteed to scale for a minimum of 10 population doublings.
Sterility:	The embryotic progenitor is negative for bacterial 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.

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