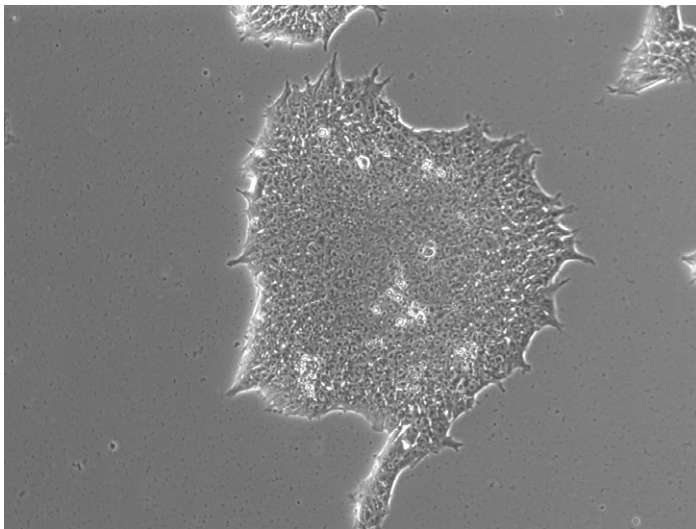


# ESI-017 Human Embryonic Stem Cell Line

Catalog Number: ES-700



## OVERVIEW

ESI BIO offers the highest quality human embryonic stem cell (hESC) lines that are among the best-characterized and documented lines commercially available today. The ESI cell lines are NIH registered and backed with donor history and testing information in best compliance with current Good Tissue Practice (cGTP) and conform to Global Ethical Standards and Clinical Cell Regulations. ESI hESCs were derived under current Good Manufacturing Practice (cGMP) conditions on human fibroblast feeder layers and are available in both research and clinical-grade formats. For most investigators, research banks of the ESI hESC lines provide a convenient entry point, while GMP compliant banks of these same cells create seamless translation into clinically relevant studies.

The ESI hESCs are well characterized in regards to genomic integrity, pluripotency status, and culturing behavior. Each line has been karyotyped, STR fingerprinted, HLA-typed, has high viability thawing recovery, is characterized by pluripotency marker expression, and is free of mycoplasma, pathogens, bacteria, yeast, and fungus. In addition to the standard pluripotency and karyotype analysis, the complete genome sequence is available for purchase.

## PRODUCT INFORMATION

<b>Format:</b>	Research grade
<b>Culture Conditions:</b>	Feeder independent in defined medium
<b>Size:</b>	≥ 5 x 10 <sup>5</sup> cells
<b>Passage Number:</b>	< 25
<b>Storage:</b>	Liquid nitrogen
<b>NIH Registration Number:</b>	0093
<b>Expanded and Banked By:</b>	BioTime, Inc.

## CHARACTERIZATION

<b>Karyotype:</b>	46, XX
<b>Positive stem cell markers:</b>	Oct4, Sox2, TRA-1-60, TRA-1-81



AMEL	X	D7S820	8, 12
CSF1PO	11, 12	D8S1179	12, 14
D13S317	11	FGA	22
D16S539	10, 11	Penta D	13, 14
D18S51	13, 16	Penta E	7, 14
D21S11	30, 33.2	THO1	6, 7
D3S1358	16, 18	TPOX	8, 11
D5S818	12	vWA	14, 16

**Figure 1 (top).** Morphology of ESI-017 at passage 20 in feeder-free culture.

**Figure 2 (middle).** Karyogram of ESI-017 at passage 20 displays a normal karyotype (46, XX). **Figure 3 (bottom).** STR profile of ESI-017.

## CULTURING GUIDELINES

We recommend that the ESI hESCs are thawed and established in the conditions detailed below. The culture platform can be subsequently adapted to preferred methods and reagents, as desired.

- Thaw 1 vial of cells in a single well of a 6-well plate using feeder-free culture conditions (e.g. TeSR™-E8™ Medium, Matrigel®).
- Change the medium daily.
- Passage cells when cultures are about 65-75% confluent using a non-enzymatic dissociation reagent (e.g. Cell Release Buffer®).
- Cells should be passaged at a ratio between 1:3 and 1:12 based on colony size and distribution.

## REFERENCES

Crook, J.M., et al. (2007) The Generation of Six Clinical-Grade Human Embryonic Stem Cell Lines. *Cell Stem Cell* 1(5): 490-494.

Funk, W.D., et al. (2012) Evaluating the genomic and sequence integrity of human ES cell lines; comparison to normal genomes. *Stem Cell Res* 8(2): 154-164.

## 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](http://www.esibio.com/termsandconditions).

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