BG01V

Human embryonic stem cells.

Catalog No.	GSC-1103
Cell Source	Human – karyotypic variant (BG01V)
Product Unit	Cryopreserved vial
Size	~2 million cells/vial
Doubling Time	~36 hours
Medium Renewal	Every day
Complete Growth Medium	20% Serum Replacer in ES-DMEM/F12 (GSM-1002) plus bFGF (GSR-2001)
Subculture Frequency	Every 4-5 days
Cryopreservation Medium	hESfreeze (GSM-4200)
Storage	Vapor phase of liquid nitrogen
Shipping	Dry ice
Safety Information	**BioSafety Level: 1** Safety conditions pertaining to well characterized agents not known to cause disease in healthy adult humans and of minimal potential hazard to laboratory personnel and the environment should be used. Lab coats and gloves should be worn at all times. Face protection is recommended when thawing a frozen vial stored in a liquid nitrogen freezer.

Intended Use

BG01V cells are derived from the wild-type BG01 human embryonic stem cells and are highly characterized. These cells are trisomy for chromosomes 12 and 17 and are XXY. Colonies of BG01V grown on irradiated or mitomycin C-treated mouse embryonic fibroblasts (MEFs) exhibit a predictable growth rate, form large, uniform colonies and are pluripotent. BG01V can be grown with feeders or feeder-free in the proper culture conditions. For Research Use Only (RUP). **Caution:** Not intended for human or animal diagnostic or therapeutic uses.

Directions for Use

All medium and reagents used in the culture of this product should be warmed to 25–37ºC before use.
Perform all activities under aseptic culture conditions.

1. Prepare tissue culture dish with coating or feeder layer prior to thawing cells.
2. Place the frozen vial into a 37°C water bath as soon as possible and retrieve the vial before the contents are completely thawed (1–2 minutes).
3. Immediately transfer the contents of the vial to a 15-mL tube and dilute 1:10 with complete growth medium.
4. Spin the tube at 270 x *g* for 5 minutes in order to pellet the cells.
5. Resuspend the pellet in complete growth medium and perform a cell count.
6. Plate the cells to a T-25 flask or 6 cm dish.
7. In 5–7 days, when the culture is confluent, the flask can be subcultured 1:3 using 1 mg/mL collagenase IV or TrypLE Select. A 1X PBS wash is recommended to remove any proteins that may inhibit trypsin activity. The incubation time necessary will be determined by the dissociation agent used.
8. Inactivate the enzyme with an equal volume of complete growth medium and pipet the cells to break up the colonies. The use of a trypsin-like enzyme will allow dissociation of colonies to single cell.
9. Spin the tube at 270 x *g* for 5 minutes in order to pellet the cells.
10. Resuspend the cells and add to flasks for further expansion.