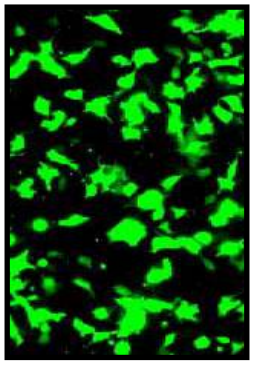
REF: P20103

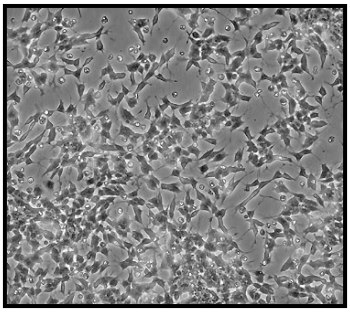
LINTERNA™ CELL LINES

GREEN FLUORESCENT SH-SY5Y CELLS



Product Name:	LINTERNA™ - SH-SY5Y Cell line
Catalog Number:	P20103
Cell Type:	SH-SY5Y Human Neuroblastoma
Fluorescent Protein:	tGFP
Format:	3 x 10^6 cells in Cryopreserved vials
Storage:	Liquid Nitrogen

A novel green fluorescent SH-SY5Y cell line has been developed through stable transfection with Evrogen TurboGFP. This cell line expresses green fluorescent protein gene sequences as free cytoplasmatic proteins.



tGFP-SH-SY5Y Cell line is stably transfected clonal cell line that is ready to use in cell-based assay applications. This stably transfected clonal cell line provides consistent levels of expression, which helps simplify the interpretation of results. This cell line is intended to be used as "in vitro" model for neuronal differentiation studies.

About SH-SY5Y

SH-SY5Y is a clonal subline of the neuroepithelioma cell line SK-N-SH that had been established in 1970 from the bone marrow biopsy of a 4-year-old girl with metastatic neuroblastoma. They are epithelial-/neuronal-like elongated cells growing as monolayer and in cell clusters. SH-SY5Y cells are known to be dopamine beta hydroxylase active, acetylcholinergic, glutamatergic and adenosinergic. The cells have very different growth phases and propagate via mitosis and differentiate by extending neurites to the surrounding area. Some treatments such as retinoic acid and BDNF can force the cells to dendrify and differentiate.

Use Restriction

This product contains a proprietary nucleic acid coding for a proprietary fluorescent protein intended to be used for research purposes only. No rights are conveyed to modify or clone the gene encoding fluorescent protein contained in this product, or to use the gene or protein other than for non-commercial research, including use for validation or screening compounds. For information on commercial licensing, contact Licensing Department, Evrogen JSC, email: license@evrogen.com.

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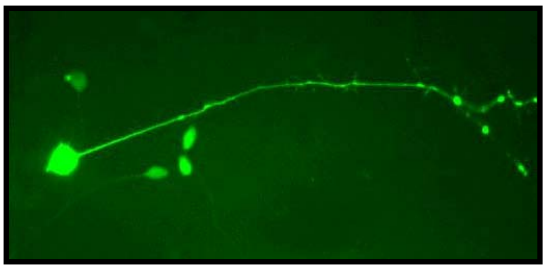
About TurboGFP

tGFP is an improved variant of the green fluorescent protein CopGFP cloned from copepoda Pontellina plumata (Arthropoda; Crustacea; Maxillopoda; Copepoda). It possesses bright green fluorescence (excitation/ emission max = 482/ 502 nm) that is visible earlier than fluorescence of other green fluorescent proteins. TurboGFP is mainly intended for applications where fast appearance of bright fluorescence is crucial. It is specially recommended for cell and organelle labeling and tracking the promoter activity.



Quality Control

All cells are performance assayed and test negative for mycoplasma, bacteria, yeast and fungi. Cell viability, morphology and proliferative capacity are measured after recovery from cryopreservation. Innoprot guarantees stable expression for many generations and provides support for cell culture and visualization.

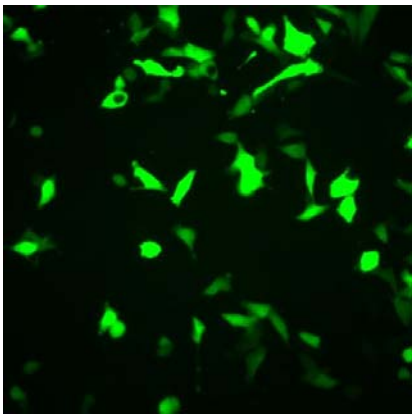


Figure 1: tGFP-SH-SY5Y Cells cultured in normal conditions

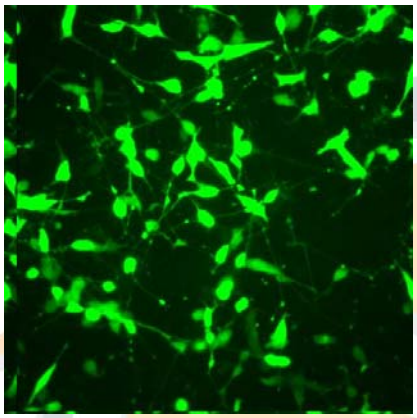


Figure 2: tGFP-SH-SY5Y Cells treated with retinoic acid)

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CELL CULTURE INSTRUCTIONS

A. Complete Growth medium

RPMI 1640 Medium 1X (61870-010 from Invitrogen); 10% FBS, 250 μg/ml G418

B. Set up culture after receiving

1. Decontaminate the external surfaces of medium and medium supplements with 70% ethanol.

2. Prepare coated flask (T-75 flask is recommended). Add 9 ml of RPMI and then add 1ml μl of FBS (without selection antibiotic). Leave the flask in incubator minimum one hour at 37ºC incubator.

3. Place the vial in a 37ºC waterbath, hold and rotate the vial gently until the contents are completely thawed. Remove the vial from the waterbath immediately, wipe it dry, rinse the vial with 70% ethanol. Remove the cap, being careful not to touch the interior threads with fingers.

4. Dispense the contents of the vial using 1 ml eppendorf pipette and gently resuspend the contents of the vial in T75 flask containing pre-warmed complete growth media.

5. Place the flask to the incubator.

6. For best result, do not disturb the culture for 16 hours after the culture has been initiated. Change the growth medium (including the selection antibiotic) the next day to remove the DMSO and unattached cells, then every other day thereafter.

Maintenance of Culture:

1. Change the medium to fresh supplemented medium the next morning after establishing a culture from cryopreserved cells. For subsequent subcultures, change medium 48 hours after establishing the subculture.

2. Once the culture reaches 50% confluence, change medium every day until the culture is approximately 80% confluent.

3. Subculture the cells when they are over 90% confluent.

4. Incubate cells with 1 ml of trypsin/EDTA solution (in the case of T-75 flask) until 80% of cells are rounded up (monitored with microscope). Add 1ml of trypsin neutralization solution to the digestion immediately and gently rock the culture vessel.

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