

## ***iLite*<sup>®</sup> G-CSF Assay Ready Cells**

REF: BM4055

*For research use only. Not for use in diagnostic procedures.*

### **DESCRIPTION**

*iLite*<sup>®</sup> G-CSF Assay Ready Cells are avian DT-40 cells (ATCC# CRL-2111) which have been genetically engineered and optimized to be responsive to G-CSF, resulting in a proportional expression of Firefly Luciferase. Normalization of cell counts, and serum matrix effects is obtained by a second reporter gene, a Renilla Luciferase reporter gene construct, under control of a constitutive promoter.

### **CONTENT**

>250 µL of Assay Ready Cells suspended in cryoprotective medium from Amsbio (Cat. No 11910).

### **RECEIPT AND STORAGE**

Upon receipt confirm that adequate dry-ice is present, and the cells are frozen. Immediately transfer to -80°C storage. Cells should be stored at least at -80°C or at lower temperature and are stable as supplied until the expiry date shown. Cells should be diluted and plated immediately after thawing.

### **BACKGROUND**

Granulocyte-colony stimulating factor (G-CSF or GCSF) is a glycoprotein that stimulates the production of granulocytes and stem cells in the bone marrow, and their subsequent release into the bloodstream. Bone marrow derived precursor cells expressing the G-CSF receptor on the cell surface respond with initiation of proliferation and differentiation after binding of G-CSF to its receptor. Pharmaceutical G-CSF analogs are used as supporting treatment to stimulate production of granulocytes (white blood cells) in patients with neutropenia due to chemotherapy, to accelerate recovery and reduce mortality (1,2).

### **APPLICATION**

The *iLite*<sup>®</sup> G-CSF Assay Ready Cells can be used for the quantification of G-CSF activity, or neutralizing antibody response against G-CSF in test samples, including human serum.

Application Notes for the following assays are available:

- Quantification of functional G-CSF (LABEL-DOC-0445)
- Quantification of G-CSF inhibitor (LABEL-DOC-0446)

**REFERENCES**

1. Deotare U, Al-Dawsari G, Couban S, Lipton JH (September 2015). "G-CSF-primed bone marrow as a source of stem cells for allografting: revisiting the concept". Bone Marrow Transplantation. 50 (9): 1150–6.
2. Tay J, Levesque JP, Winkler IG (December 2016). "Cellular players of hematopoietic stem cell mobilization in the bone marrow niche". International Journal of Hematology. 105: 129–140.

**SYMBOLS ON LABEL**

	Lot number		Temperature limitation
	Catalogue number		Biological risk
	Use by		Manufacturer

**PRECAUTIONS**

For research use only. This product is intended for professional laboratory research use only. The data and results originating from using the product should not be used either in diagnostic procedures or in human therapeutic applications.

*iLite*<sup>®</sup> G-CSF Assay Ready Cells are a stable transfected cell line of avian origin classified as a Class 1 Genetically Modified Microorganism. They should be handled in accordance with EU Directive 2009/41/EC and disposed of in a licensed contained-use facility in accordance with these regulations. When used in accordance with the manufacturer’s product specification, the requirements of EC Directive 2009/41/EC on the contained-use of genetically modified microorganisms are deemed to have been met.

Residues of chemicals and preparations generally considered as biohazardous waste should be inactivated prior to disposal by autoclaving or using bleach. All such materials should be disposed of in accordance with established safety procedures.

**PROPRIETARY INFORMATION**

In accepting delivery of *iLite*<sup>®</sup> Assay Ready Cells the recipient agrees not to sub-culture these cells, attempt to sub-culture them or to give them to a third party, and only to use them directly in assays. *iLite*<sup>®</sup> cell-based products are covered by patents which is the property of Svar Life Science AB and any attempt to reproduce the delivered *iLite*<sup>®</sup> Assay Ready Cells is an infringement of these patents.