iLite® Type I IFN Assay Ready Cells

REF: BM3049

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

DESCRIPTION

iLite® Type I IFN Assay Ready Cells are human cells (U937, ATCC# CRL1593.2) engineered to express Firefly Luciferase under the control of an IFN α/β responsive promoter. When IFNα or IFNβ binds to the IFN α/β receptor on the cell surface, the IFN α/β regulated Firefly Luciferase reporter gene construct will be activated, resulting in a luminescent signal.

CONTENT

2.5 mL of *iLite*® Type I IFN Assay Ready Cells diluted in RPMI 1640 with 40% heat inactivated fetal bovine serum (FBS), 10% glycerol and 2.5% dimethyl sulfoxide (DMSO).

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 -80°C **(do not store at any other temperature)** and are stable as supplied until the expiry date shown. Cells should be used within 30 min of thawing and should be diluted immediately after thawing.

BACKGROUND

Interferon alpha (IFNα) has been widely used to treat chronic viral hepatitis and a wide variety of malignant diseases, including hairy cell leukemia, basal cell carcinoma, chronic myeloid leukemia and cutaneous T-cell lymphoma. Several different recombinant preparations of IFNα are available commercially; the most commonly used formulations include IFNα2a and IFNα2b. A number of studies have shown that development of anti-IFNα neutralizing antibodies (NAbs) is correlated with a loss of IFNα treatment efficacy.

Interferon beta (IFNβ) is well established as first line therapy in relapsing/remitting multiple sclerosis. The occurrence of NAbs and binding antibodies (BAbs) to IFNβ has been widely reported. Subjects with NAbs have shown reduced response to treatment with IFNβ, having higher relapse rates, increased MRI activity and higher risk of disease progression. The frequencies and titers of NAbs vary depending on the preparation used, dose and frequency of administration and also the assay used to quantify them.

APPLICATION

The *iLite*® Type I IFN Assay Ready Cells can be used for quantification of IFN α or β and for measurement of both anti-IFNα antibodies and anti-IFNβ antibodies.

Application Notes for the following assays are available:

- Quantification of IFN α or β (LABEL-DOC-0388)
- Determination of neutralizing antibodies to Type I IFN (LABEL-DOC-0387)

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RELATED PRODUCTS

REF	Product name
BM3249	*iLite*® IFN beta 1a (950 IU/mL)*
BM3251	*iLite*® IFN beta 1a NAb positive control
BM3134	*iLite*® Diluent B
BM3250	*iLite*® Diluent D

*Ensure matrix conformity between reference and samples when using *iLite*® IFN beta 1a (950 IU/mL) as reference

REFERENCES

1. Hermanrud C, Ryner M, Luft T, Jensen PE, Ingenhoven K, Rat D, Deisenhammer F, Sørensen PS, Pallardy M, Sikkema D, Bertotti E, Kramer D, Creeke P, Fogdell-Hahn A, on behalf of the ABIRISK consortium: *Development and validation of cell-based luciferase reporter gene assays for measuring neutralizing anti-drug antibodies against interferon beta.* J Immunol Methods 2016; 430: 1-9.

SYMBOLS ON LABEL

LOT	Lot number		Temperature limitation
REF	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® Type I IFN Assay Ready Cells are a stable transfected cell line of human origin classified as a Class 1 Genetically Modified Microorganism. They should be handled in accordance with EU regulations (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*® 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*® cell-based products are covered by patents which is the property of Svar Life Science AB and any attempt to reproduce the delivered *iLite*® Assay Ready Cells is an infringement of these patents.

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