iLite® IL-12 Assay Ready Cells

REF: BM4012

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

DESCRIPTION

iLite® IL-12 Assay Ready Cells are avian DT-40 cells (ATCC#CRL2111) which have been genetically engineered to be responsive to IL-12 by specific and 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 the control of a constitutive promotor.

CONTENT

>250µl of Assay Ready Cells suspended in cryoprotective medium from Amsbio (Cat. No 11888).

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

Interleukin-12 (IL-12) is a heterodimeric 70 kDa cytokine mainly produced by macro-phages, neutrophils and dendritic cells in response to stimulation by inflammatory antigens. Stimulation of T-cells, involvement in T-cell differentiation of Th1 cells and stimulation of IFN-gamma and TNF-alpha production are key functions of IL-12.
IL-12 is composed of two subunits, p35 and p40, covalently linked by a single disulfide bond. The p40 subunit, which binds to the receptor chain IL-12Rβ1, is shared with another heterodimeric cytokine, IL-23. However, the two cytokines expert distinct non-redundant biological functions (1). Therapeutic agents targeting both IL-12 and IL-23 cytokines are currently used to treat psoriasis and psoriatic arthritis, and related agents are in clinical testing for a variety of inflammatory disorders (2).

APPLICATION

The *iLite*® IL-12 Assay Ready Cells can be used for the quantification of IL-12 or p40 inhibitor activity, or neutralizing antibody response against such inhibitors in human serum.

- Quantification of functional IL-12 (LABEL-DOC-0477)
- Quantification of IL-12 inhibitor activity (LABEL-DOC-0392)
- Determination of neutralizing antibodies against IL-12 inhibitors (LABEL-DOC-0393)

RELATED PRODUCTS

REF	Product name
BM3044	*iLite*® TNF-alpha Assay Ready Cells
BM4023	*iLite*® IL-23 Assay Ready Cells

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REFERENCES

1. Hsieh CS, Macatonia SE, Tripp CS, Wolf SF, O'Garra A, Murphy KM. (April 1993). *Development of TH1 CD4+ T cells through IL-12 produced by Listeria-induced macrophages.* Science 260: 547–5499 (1993).
2. Teng MW, Bowman EP, McElwee JJ, Smyth MJ, Casanova JL, Cooper AM, Cua DJ. *IL-12 and IL-23 cytokines: from discovery to targeted therapies for immune-mediated inflammatory diseases.* Nature Medicine 21: 719–729 (2015).

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® IL-12 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*® 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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