

***iLite*[®] IL-6 Assay Ready Cells**

REF: BM4061

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

DESCRIPTION

iLite[®] IL-6 Assay Ready Cells are based on the human embryonic kidney cell line, HEK293¹, and have been genetically engineered and optimized to be responsive to human IL-6, 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 the 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

Interleukin-6 (IL-6) is member of the cytokine family. It is found relevant to many inflammatory diseases and many cancers and can act as both a pro-inflammatory cytokine and an anti-inflammatory myokine.

In classic signaling, IL-6 stimulates target cells via a membrane bound interleukin-6 receptor (IL-6R), which upon ligand binding associates with the signaling receptor protein gp130. The anti-inflammatory activities of IL-6 are transmitted by this signaling pathway whereas pro-inflammatory responses of IL-6 are mediated by trans-signaling (cells expressing only gp130 respond to a complex of IL-6 bound to a soluble form of the IL-6R). This is important since therapeutic inhibition of IL-6 by the neutralizing anti-IL-6R monoclonal antibody has been focused on the treatment of inflammatory diseases (1).

¹ The HEK-293 cell line has been used under a license obtained from AdVec Inc.

APPLICATION

The *iLite*[®] IL-6 Assay Ready Cells can be used for the quantification of IL-6 activity, IL-6 receptor inhibiting activity or detection of neutralizing antibody response against such inhibitors test samples, including human serum.

Application Notes for the following assays are available:

- Quantification of functional IL-6 (LABEL-DOC-0440)
- Quantification of IL-6 receptor inhibitor (LABEL-DOC-0441)
- Determination of neutralizing antibodies against IL-6 receptor inhibitor (LABEL-DOC-0442)

REFERENCES

1. Jürgen Scheller, Athena Chalaris, Dirk Schmidt-Arras, Stefan Rose-John, *The pro- and anti-inflammatory properties of the cytokine interleukin-6*. *Biochimica et Biophysica Acta* 1813 (2011) 878–888.

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[®] IL-6 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 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.