

***iLite*[®] ADCC anti-mTNF Activity Set**

REF: BM5095

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

DESCRIPTION

This product contains a packaged set of the three individual products, one vial of each:

- *iLite*[®] ADCC Effector (V) Assay Ready Cells (BM5001)
- *iLite*[®] mTNF-alpha (+) Target Assay Ready Cells (BM5013)
- *iLite*[®] mTNF-alpha (-) Target Assay Ready Cells (BM5014)

All three products are genetically engineered human cells to be used for measuring the ADCC activity of anti-mTNF antibodies. For more information about the individual cell lines, please consult the specific Product Specifications on www.svarlifescience.com.

CONTENT

3 vials of *iLite*[®] Assay Ready Cells (>250 µL). For contents of the individual vials, please consult the specific Product Specifications on www.svarlifescience.com.

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.

BACKGROUND

Antibody-dependent cell-mediated cytotoxicity (ADCC) is a mechanism whereby pathogenic cells are lysed by lymphocytes, most often Natural Killer (NK) cells. The mechanism involves binding of antibodies to surface antigens on the pathogen. Crosslinking of these antibodies to NK cells through the binding of the Fc-portion to Fc receptors on the NK cells leads to activation of the NK cell and formation of an immune synapse with the pathogenic cell. The NK cell releases cytotoxic granules containing granzymes and perforin into the synapse, leading to apoptosis of the targeted cell (1).

Monoclonal anti-TNF-alpha inhibitors are one of the most common types of antibody drugs on the market. The mechanism by which these drugs act is most often blocking of soluble TNF-alpha or the TNF receptor. Since TNF-alpha is produced through cleavage of a membrane bound form of the protein, there is a risk that anti-TNF-alpha antibodies bind the membrane bound TNF-alpha and trigger effector functions, such as ADCC. By using the *iLite*[®] ADCC mTNF Activity Assay, the risk of an anti-TNF-alpha antibody drug inducing ADCC can be quantified.

APPLICATION

The products included in the *iLite*[®] ADCC anti-mTNF Activity Set can be used for the quantification ADCC activity of anti-HER2 antibodies. Application note for the following assay is available:

- Quantification of anti-mTNF-alpha ADCC activity (LABEL-DOC-0402)

RELATED PRODUCTS

REF	Product name
BM5001	<i>iLite</i> [®] ADCC Effector (V) Assay Ready Cells
BM5013	<i>iLite</i> [®] mTNF-alpha (+) Target Assay Ready Cells
BM5014	<i>iLite</i> [®] mTNF-alpha (-) Target Assay Ready Cells

REFERENCES

1. Weiner GJ. *Building better monoclonal antibody-based therapeutics*. Nat Rev Cancer 15: 361-70 (2015)

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.

The cells included in the *iLite*[®] ADCC anti-mTNF Activity Set are stable transfected cell lines of human origin classified as Class 1 Genetically Modified Microorganism. This is based on the conclusion that neither insert nor vector adds anything to the biosafety level since the cells cannot produce active virus. 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 and 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.