



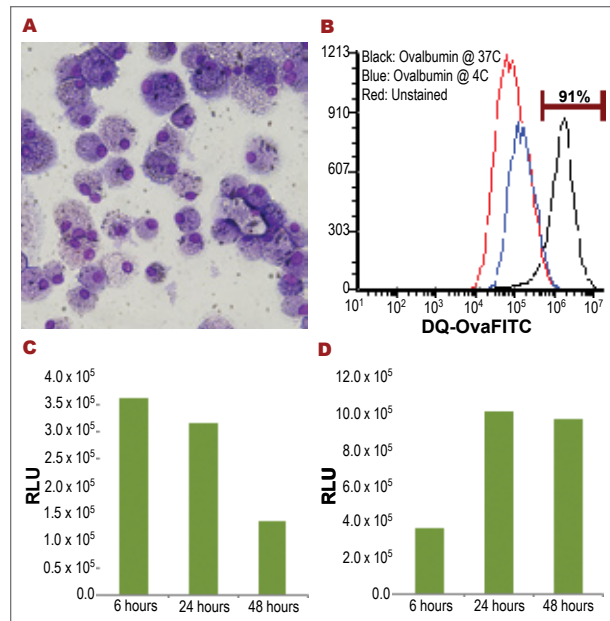
iCell[®] Macrophages

FUJIFILM Cellular Dynamics, Inc. (FCDI), offers iCell[®] Macrophages. Derived from human induced pluripotent stem (iPS) cells and exhibiting expected physiology, iCell Macrophages are available in highly pure, commercial quantities with batch-to-batch consistency for reproducible research.

Macrophages are a type of leukocyte responsible for mediating inflammatory and immune responses. As part of the innate immune response system, these cells ingest unwanted material from the body by the process of phagocytosis, thereby removing cell debris,

bacteria, and other foreign matter. Additionally, they can release cytokines that in turn signal other cells to mount inflammatory or anti-inflammatory responses.

Macrophages are found as specialized subtypes in multiple organs within the body (e.g. Kupffer cells in the liver) where they have specific functions, such as mediating responses to toxic agents. Because macrophages have been implicated recently as playing a key role in tumorigenesis and evading the immune system response, targeting tumor-associated macrophages holds significant promise for therapeutic development efforts.



▲ Figure 1: iCell Macrophages Exhibit Expected Characteristics
*iCell Macrophages (A) display the granular morphology of this cell type when stained with Wright stain and (B) actively undergo phagocytosis of fluorescent ovalbumin particles. (C) LPS stimulation of iCell Macrophages leads to cytokine release *Tnfa* and (D) *IL-6* secretion showing the expected profiles over the observed time course.*

Advantages

- **Human pedigree:** iCell Macrophages are differentiated from human iPS cells and exhibit functional characteristics similar to native human macrophages.
- **Homogenous and reproducible:** iCell Macrophages are highly pure, providing biologically relevant and reproducible results.
- **Acute and long-term testing capabilities:** iCell Macrophages provide consistency for co-culture studies and can be grown with cells of the same or a different genotype.
- **Easy to implement:** iCell Macrophages are shipped cryopreserved. Simply thaw and use.

Applications

iCell Macrophages are amenable to a variety of biochemical and cellular assays including:

- Immune response
- Inflammation
- Toxicity
- Infectious disease

Specifications

Cell Type	Macrophages
Organism	Human
Source	Differentiated from an FCDI reprogrammed human iPS cell line
Quantity	$\geq 1.0 \times 10^6$ viable cells per vial
Shipped	Frozen

Ordering Information

Kit	Component(s)*	Catalog Number
iCell Macrophages Kit, 01279	$\geq 1.0 \times 10^6$ viable cells	R1099

* A User's Guide is provided in each kit.

For More Information

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iCell Products

Provide access to biologically relevant, human iPS cells for disease modeling, drug discovery, toxicity testing, and regenerative medicine. FCDI's rapidly growing portfolio of iCell products includes human cardiomyocytes, GABAergic, glutamatergic, dopaminergic and motor neurons, hepatocytes, endothelial cells, astrocytes, hematopoietic progenitor cells, skeletal myoblasts, macrophages, and others.

Visit the FCDI website for the most current list of supported cell types.

