

## DATA SHEET

# CloneDetect

## A Real-Time Clone Screening Reagent for Clonal Cell Antibody Production in Cell Line Development

### Introduction

#### Real-time, *in situ* detection of IgG secretion

Added to semi-solid media at the moment of plating, CloneDetect diffuses freely, creating immunoprecipitation complexes with target immunoglobulins as they are secreted from the colonies. These complexes generate localized fluorescent signals that, under optimized assay conditions, are proportional to the amount of IgG secreted by a specific clone. Utilizing a combination of imaging and robotics, the ClonePix® system screens for clonality and productivity simultaneously prior to collecting the highest producing clones in a rapid one-step process.

#### Screen and select mammalian clones secreting mouse or human IgG

CloneDetect is designed for use with ClonePix and semi-solid media when used to screen and select mammalian cell lines secreting mouse or human IgG. ClonePix increases workflow productivity in over 200 biopharmaceutical laboratories around the world. Users can screen more clones in less time and select clones with optimal expression levels early in the workflow.

#### Formation of discrete colonies

To prepare for screening, cells are grown in source plates containing semi-solid media. This ensures formation of discrete colonies and facilitates plating out of large numbers of cells. CloneMatrix is a 2.5x concentrate available for those who wish to make their own specific semi-solid media recipes.

### Benefits

- Real-time *in situ* detection, no sample preparation or handling required
- Cell-culture validated, sterile and azide-free
- Regulatory-friendly, safe to use on cell substrates
- High specificity and affinity for all sub-classes of mouse or human IgGs
- Stability in semi-solid culture media over prolonged periods of culture
- Simple, unit concentrations for optimized performance on ClonePix Systems
- Compatible with other cell analyzer instruments with green fluorescent channels, e.g. CloneSelect® Imager FL, DispenseCell™ Single-Cell Dispenser™, Flow Cytometry (FACS)

## Supports prolonged periods of live cell culture and versatile cell analyzers

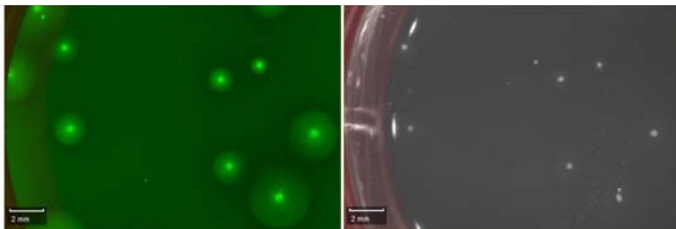
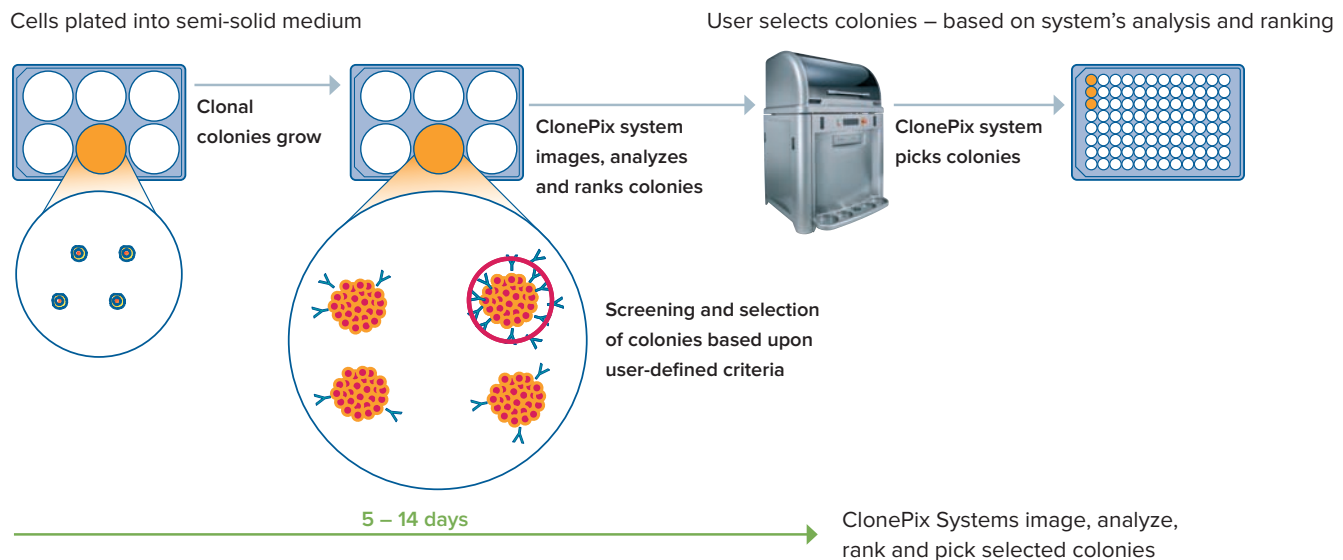
All products are cell-culture validated, sterile and azide-free. Products are optimized for ClonePix use, and compatible with versatile cell analyzers including the DispenseCell Single-Cell Dispenser, CloneSelect Imager FL and flow cytometry with green fluorescent channels.

## Image, analyze, rank and pick secreting clones

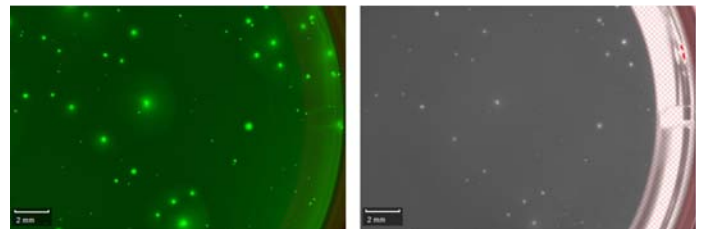
CloneDetect is a FITC fluorescein-labeled goat polyclonal antibody with high affinity and specificity for all sub-classes of mouse or human IgG. CloneDetect has been manufactured to ISO9001 Quality Assurance guidelines.

All raw materials are from USDA registered farm and clinically certified healthy animals. Final products are subjected to safety assessment and pass sterility, viral and mycoplasma test for easy transition to GMP drug development environment.

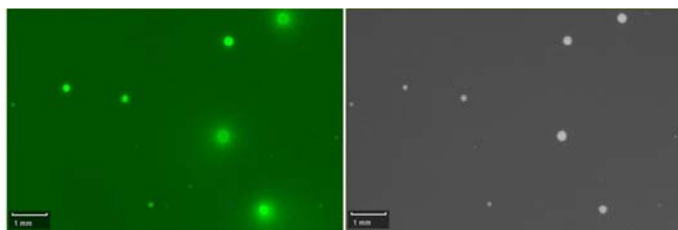
For applications required to satisfy highest regulatory demands, Recombinant CloneDetect offers a unique recombinant alternative. Recombinant CloneDetect is a FITC fluorescein labeled recombinant monoclonal antibody molecule (mouse IgG), which are produced by engineered CHO cells. The product has a high specificity and affinity for human IgG Fc region. In addition to subjected to a rigorous regimen of safety assessment of sterility, mycoplasma and a panel of adventitious viral agents, each batch comes with certificate of analysis of endotoxin levels.



**Figure 1.** Mouse CloneDetect K8425 was directly added to SJK-287-38 cells (ECACC No. 90112228) semi-solid culture on day 0. The 6-well plate was imaged on a ClonePix system on day 7 post plating under FITC channel (on the left) and white light channel (on the right).



**Figure 2.** Human polyclonal CloneDetect K8400 was directly added to semi-solid culture of stable transfected CHO DG44 cells secreting human IgG1 antibodies on day 0. The 6-well plate was imaged on a ClonePix system on day 14 post plating under FITC channel (on the left) and white light channel (on the right).



**Figure 3.** Human recombinant monoclonal CloneDetect K8495 was directly added to semi-solid culture of stable transfected CHO DG44 cells secreting human IgG1 antibodies on day 0. The 6-well plate was imaged on a ClonePix system on day 14 post plating under FITC channel (on the left) and white light channel (on the right).

## Recommended products for colony growth, IgG detection and cell line expansion

CloneDetect	Part number
CloneDetect, anti-mouse IgG (Fc) $\gamma$ Detection agent. Polyclonal, FITC Fluorescein labelled. Sterile, azide-free.	K8425
CloneDetect, anti-mouse IgG (H+L) Detection agent. Polyclonal, FITC Fluorescein labelled. Sterile, azide-free.	K8420
CloneDetect, anti-human IgG (H+L) Detection agent. Polyclonal, FITC Fluorescein labelled. Sterile, azide-free.	K8400
<b>Recombinant CloneDetect</b>	
Recombinant CloneDetect, anti-human IgG(Fc) Detection agent. Monoclonal, FITC Fluorescein labelled. Sterile, azide free, animal origin-free, low endotoxin	K8495
<b>Related Products</b>	
ClonePix picking pin cleaning solution: aQu Clean	K2505
ClonePix performance calibrator: Calibeads	K8150
CloneMatrix, makes 100 mL final media volume, 1 x 40 mL*	K8510
CloneMatrix, makes 6 x 100 mL final media volume, 6 x 40 mL*. Contains (6) of K8510	K8500
CloneMatrix-CHO: optimized for CHO cells, contains 6 x 2 ml CloneXL and 6 x 40 ml CloneMatrix to make 6 x 100 ml final media	K8520
CloneXL reagent, 50x concentrated, CHO ACF supplement (animal-component-free), converts CloneMatrix to CloneMatrix-CHO 5 x 2 ml	K8525
CloneMatrix-CHO: optimized for CHO cells, contains 1 x 2mL CloneXL ACF supplement and 1 x 40 ml CloneMatrix to make 100 ml final media	K8530
CloneMedia CHO Growth A with L-Gln 6 x 90 ml	K8800
CloneMedia CHO Growth A with L-Gln 1 x 90 ml	K8810
CloneMedia CHO Growth A without L-Gln 6 x 90 ml	K8830
CloneMedia CHO Growth A without L-Gln 1 x 90 ml	K8840
ClonePix welcome kit	K9000 & 9001

\* CloneMatrix is a 2.5x concentrate available for those who wish to make their own specific semi-solid media recipes

To reorder reagents, go to:

- [shop.moleculardevices.com](https://shop.moleculardevices.com) (North America only)
- [www.moleculardevices.com/quote-request](https://www.moleculardevices.com/quote-request) (Outside of North America)

To review protocol, go to:

- <https://support.moleculardevices.com/s/article/Biotherapeutic-Reagent-Protocols>

To obtain technical support:

- Submit a support request by phone or through the Knowledge Base at [support.moleculardevices.com](https://support.moleculardevices.com)
- For regional support contact information, go to [www.moleculardevices.com/contact](https://www.moleculardevices.com/contact)

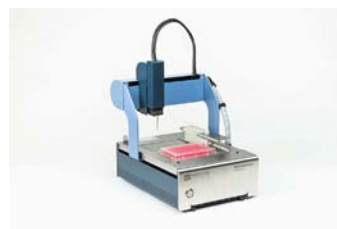
## Instrument compatibility



ClonePix® systems



CloneSelect® Imager FL



DispenseCell Single-Cell Dispenser™

Contact Us

Phone: +1.800.635.5577  
Web: [www.moleculardevices.com](http://www.moleculardevices.com)  
Email: [info@moldev.com](mailto:info@moldev.com)  
Check our website for a current  
listing of worldwide distributors.

Regional Offices

USA and Canada	+1.800.635.5577	Taiwan/Hong Kong	+886.2.2656.7585
United Kingdom	+44.118.944.8000	Japan	+81.3.6362.9109
Europe*	00800.665.32860	South Korea	+82.2.3471.9531
China	+86.4008203586	India	+91.73.8661.1198

*\*Austria, Belgium, Denmark, Finland, France, Germany, Iceland, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, Switzerland and United Kingdom*