

# **Imaging Plate CG**

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# 1. Description

This product is for research use only.

Components

24-well or 96-well plates, black, cover glass bottom, with lid, sterile and single packed, 20 pieces per box.

Product	Order no.
Imaging Plate CG 1.0 (24 well)	130-098-262
Imaging Plate CG 1.5 (24 well)	130-098-263
Imaging Plate CG 1.0 (96 well)	130-098-264
Imaging Plate CG 1.5 (96 well)	130-098-265

Storage

Store Imaging Plates CG dry and protected from light at room temperature (19–25 °C).

The expiration date is indicated on the box label. Do not use after this date.

## 1.1 Background information

The Imaging Plates CG have been designed for cell based assays with special requirements for microscopic and photometric analysis. The plate bottom is made from cover glass with either 145  $\mu m$  or 170  $\mu m$  thickness (German cover glass 1.0 or 1.5, respectively) and enables superior optical properties for high resolution microscopy or fluorescence correlation analysis.

## 1.2 Technical specifications

- Plate material: Polystyrene, black.
- Bottom material: Borosilicate cover glass, 145  $\mu m$  (1.0) or 170  $\mu m$  (1.5) thick.
- Lid material: Polystyrene, transparent with condensation rings.

- Plate body with low skirt design (distance between skirt bottom and focal plane 0.4 mm).
- The cover glass is physically surface treated to promote cell adhesion and spreading. Sensitive cell types may require additional surface coatings.
- Recommended working temperature betweeen 4 °C and 40 °C.
- Recommended working volume per well: 500–1000 μL (24 well) and 100–200 μL (96 well), respectively.
- Dimensions (ANSI/SLAS guideline compliant):

	24-well plate	96-well plate
Length [mm]	127.76	127.76
Width [mm]	85.48	85.48
Height [mm]	15	14.35
Well diameter [mm]	13.2	6
Well-well distance x/y [mm]	18/18	9/9
Distance well center A1 to short side [mm]	18.88	14.38
Distance well center A1 to long side [mm]	15.74	11.24
Distance bottom to focal plane [mm]	0.4	0.4
Bottom thickness [mm]	0.145/0.170	0.145/0.170

Optical properties: Refractive index 1.52; Abbe's number 55;
>85% light transmission at 310 nm;
>90% light transmission between 360–800 nm.

## 1.3 Further information

- Imaging Plates CG are compliant with all plate readers and imaging systems which accept ANSI/SLAS plates. For HCA readers and automatted microscopes use the given dimensional data for instrument settings/stage programming. The position of wells for 24-well plates are not fixed by ANSI/SLAS standards. For plate readers with standard settings optimal performance should be checked before the first use.
- The polystyrene plate body and the adhesive to bond the film limit chemical resistance: avoid prolonged exposure to alcohols, ketones, and acetone to prevent degradation of the plate body or the adhesive.
- Standard immersion media can be used (water, oil, glycerol).

• Chemical resistance criteria: no deformation, no color change, no leakage, no interference with staining procedures.

Chemicals	Conditions	Resistant/ not resisitant
Acetone 10%, methanol 90%	1 h, −20 °C	-
Acetone 100%	24 h, RT	-
Acetonitrile	24 h, RT	-
Benzene	1 h, RT	-
DMSO 1-10%	5 d, RT	+
Ethanol 75%	24 h, RT	+
Ethylene glycol	24 h, RT	-
Ethylene oxide	24 h, RT	-
Formaldehyde 3.7%	5 d, RT	+
Glutaraldehyde 1%	5 d, RT	+
Glycerine	5 d, RT	+
Immersion oils	5 d, RT	+
Isopropanol 75%	24 h, RT	+
Ketones	24 h, RT	-
Methanol 90%	24 h, RT	+
Tolouene	1 h, RT	_
Triton™ X	24 h, 37 °C	+

RT: room temperature (19-25 °C)

d: dav

h: hour

+: resistant

-: not resistant

## 1.4 Applications

Imaging Plates CG have been designed for cell based assays with fluorescence or luminescence read out technologies and high content analysis (HCA).

Examples are

- (multiplexed) HCA,
- fluorescence correlation spectroscopy, or
- high and super resolution microscopy.

Refer to www.miltenyibiotec.com for all data sheets and protocols. Miltenyi Biotec provides technical support worldwide. Visit www.miltenyibiotec.com/local to find your nearest Miltenyi Biotec contact.

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