

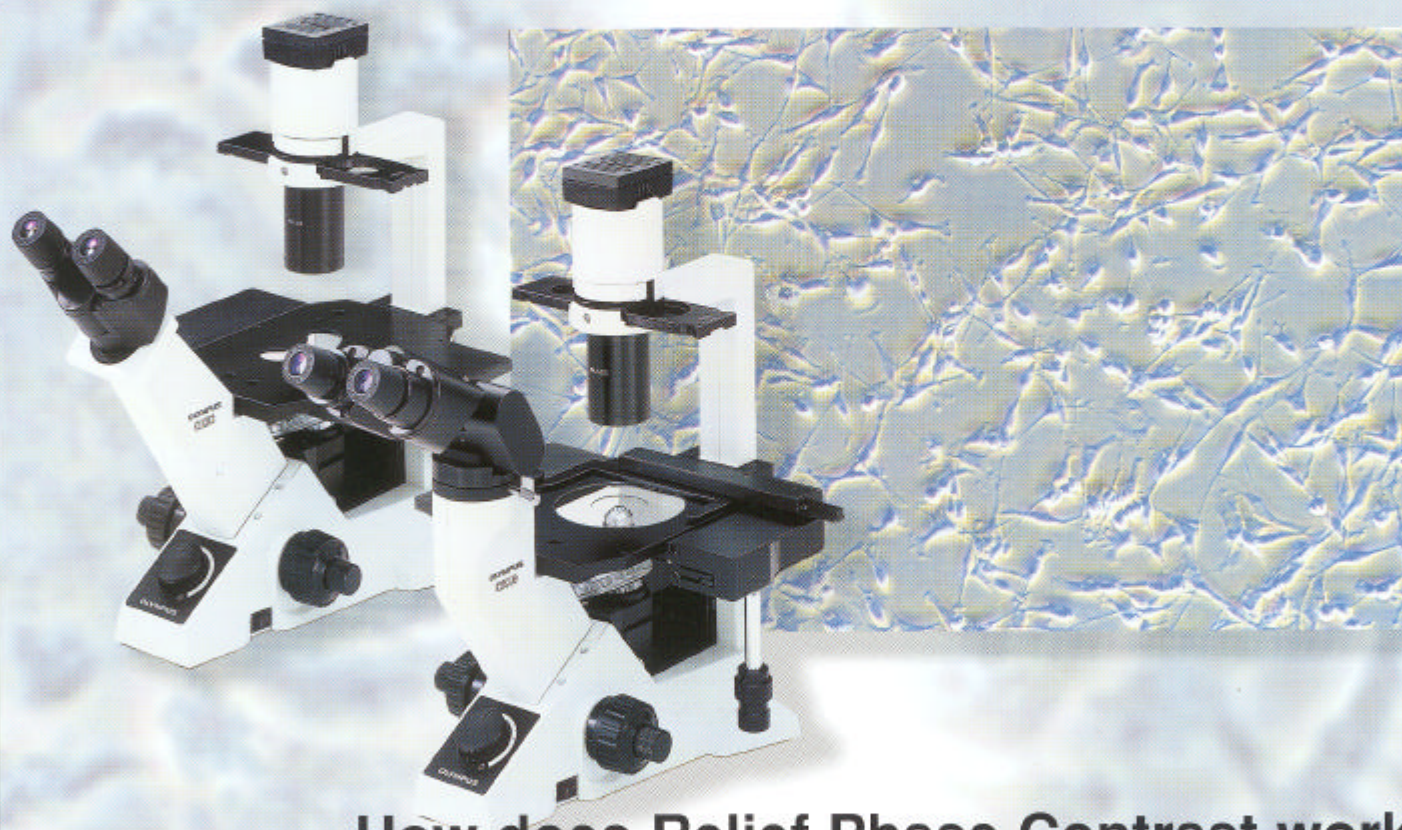
# OLYMPUS

THE VISIBLE DIFFERENCE

Relief Phase  
Contrast

## OLYMPUS CK SERIES

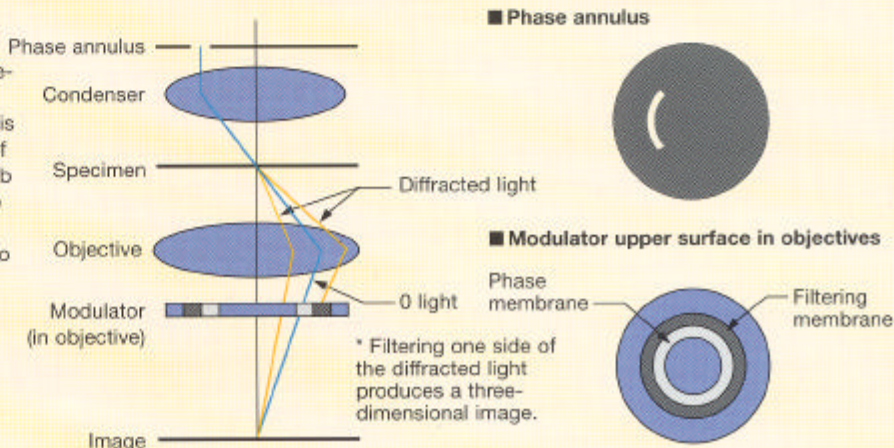
## GREATER CHOICE IN CELL IMAGING



### How does Relief Phase Contrast work?

#### ■ RPC Theory

The use of oblique illumination allows a three-dimensionally appearing image to be obtained. This is enhanced by the use of a filter, resulting in superb three-dimensional Phase Contrast images. In addition, the reduced halo allows more detailed, effective observation of thick specimens.



*The reduced halo allows more detailed, effective observation of thicker specimens.*

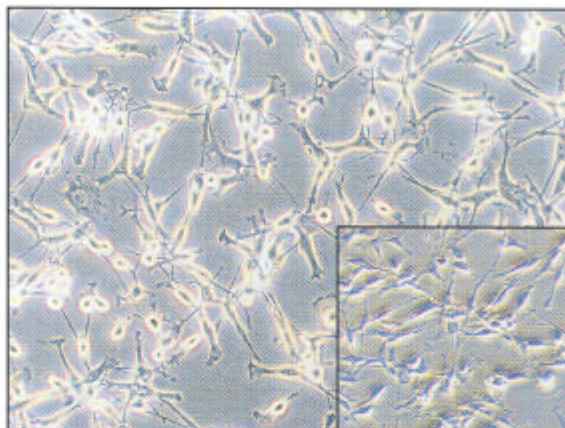
## What do you want to see?

The many different requirements of biomedical microscopists in cell culturing, and the many shapes and sizes of cultured cells, each provide different imaging problems.

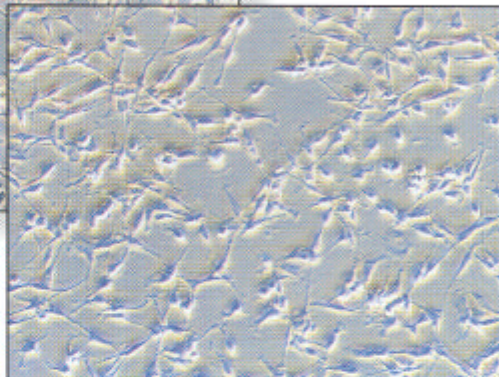
Some microscopists want to visualise cell edges. Others may only be interested in the cell's internal structure. The method you use will depend on the particular application.

So to provide even more flexibility for users, Olympus has incorporated a new Relief Phase Contrast approach in the CK Series microscopes.

In addition, the CK Series provides for normal Phase Contrast with new objectives offering centering-free alignment with improved contrast and resolution.



Phase contrast



Relief phase contrast

## The double approach of Relief Phase Contrast...

- Phase contrast imaging—highlights cell outline and interior
- Oblique illumination—provides volume and conformational information.

## ...provides new imaging strength

- Early detection of changes in cell form and shape
- Particular benefits for cell viability assessments.

### Configurations:

#### CK 40

CK40F Microscope frame with integrated quadruple revolving nosepiece and plain stage (160x250mm), coarse and fine focusing, long working distance condenser NA 0.3, WD 72mm  
 U-LS30-3-2 Lamp socket 30W  
 6V30WHAL Halogen bulb  
 UYCP Power cord  
 CH3-BH45 Binocular tube, 45° inclined  
 NCWHK10x/18 Widefield eyepiece, FN 18, option FN 20  
 CK40-RPSL Centerable relief phase contrast slider for 4x-20x magnification and brightfield position  
 CK40-RPS40 Relief phase contrast insert for LWDCPL40xFRP  
 CT-5LB Centering Telescope

#### Objectives:

SPL4xRP/0.13 S Plan Achromat 4x for RPC, WD 15.5mm  
 DA10xRP/0.25 D Achromat 10x for RPC, WD 7.18mm  
 LWDCDA20xRP/0.40 Long working distance D Achromat 20x for RPC, WD 5.4mm  
 LWDCDPL40xFRP/0.55 Long working distance D Plan Achromat for RPC, with fixed cover correction (1.0mm), WD 2.04mm

#### CK 30

CK30F Microscope frame with fixed binocular tube, integrated quadruple revolving nosepiece, plain stage (160x250mm), coarse and fine focusing, long working distance condenser NA 0.3, WD 72mm, filter, dust cover  
 U-LS30-3-2 Lamp socket 30W  
 6V30WHAL Halogen bulb  
 UYCP Power cord  
 NCWHK10x/18 Widefield eyepiece, FN 18  
 CK40-RPSL Centerable relief phase contrast slider for 4x-20x magnification and brightfield position  
 CK40-RPS40 Relief phase contrast insert for LWDCPL40xFRP  
 CT-5LB Centering Telescope

#### Objectives:

SPL4xRP/0.13 S Plan Achromat 4x for RPC, WD 15.5mm  
 DA10xRP/0.25 D Achromat 10x for RPC, WD 7.18mm  
 LWDCDA20xRP/0.40 Long working distance D Achromat 20x for RPC, WD 5.4mm  
 LWDCDPL40xFRP/0.55 Long working distance D Plan Achromat for RPC, with fixed cover correction (1.0mm), WD 2.04mm

**OLYMPUS**

T H E V I S I B L E D I F F E R E N C E