

```

current_file = getTitle() ;

run("Duplicate...", "title=centrosome duplicate channels=3");
roiManager("reset") ;

//cep170 mask
selectWindow("centrosome") ;
run("Subtract Background...", "rolling=5");
setThreshold(70, 65535);
setOption("BlackBackground", true);
run("Convert to Mask");

//cep83 mask
selectWindow(current_file) ;
run("Duplicate...", "title=cep19 duplicate channels=2");
selectWindow("cep19") ;
run("Subtract Background...", "rolling=5");
setForegroundColor(255,255,255);
setThreshold(180,65535);
setOption("BlackBackground",true) ;
run("Convert to Mask") ;
run("Open") ;

//combination mask
run("Images to Stack","name=combo_mask");
run("Z Project...", "projection=[Max Intensity]") ;
run("Dilate") ;
run("Dilate");
run("Dilate");
run("Dilate");
run("Dilate");

run("Erode") ;
run("Erode") ;
run("Erode") ;

selectWindow(current_file) ;
Stack.setChannel(2) ;
run("Duplicate...", "title=CEP83_"+current_file+" channels=2") ;
run("Subtract Background...", "rolling=5") ;

selectWindow("MAX_combo_mask") ;
run("ROI Manager...");

```

```
run("Set Measurements...", "area mean min centroid shape integrated display  
redirect=CEP83_"+current_file+" decimal=3");  
run("Analyze Particles...", "size=50-Infinity pixel circularity=0.55-1.00 exclude add");  
roiManager("Measure");  
selectWindow("CEP83_"+current_file) ;  
close() ;  
roiManager("Delete");
```

```
//clean up  
selectWindow("MAX_combo_mask") ;  
close() ;  
selectWindow("combo_mask");  
close() ;
```