

# Determine Optical Density (OD) of a culture

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<b>Where</b>	"OD machine" in the room behind the coffee machine	
	<b>Quantity</b>	<b>What</b>
<b>Material needed</b>	2	"OD machine" Special flasks for OD measurement
<b>Steps</b>	<ol style="list-style-type: none"><li>1. Fill one flask with cell culture (1 ml). Fill the reference flask with 1 ml distilled water.</li><li>2. Open program "Simple Reads". Use the Guest account if nobody is logged in.</li><li>3. Setup → change wavelength to 600 nm (default is 500 nm)</li><li>4. Insert reference sample (distilled water) into the machine. Press "ZERO"</li><li>5. Take out reference sample. Insert cell culture sample. Press "READ" → obtain OD value.</li></ol>	
<b>Warnings</b>	<ul style="list-style-type: none"><li>• The OD machine is only accurate in a range from 0.05 OD to 0.5 OD. Therefore if the culture is too dense, dilute it in order to be in the accurate range. Don't forget to correct for this after obtaining the value. (E.g. if you made a dilution 1:2 double the value to get the OD)</li><li>• Never touch the computer keyboard with gloves!</li><li>• Do not touch flasks on the side where the light will pass through!</li></ul>	

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