Quantification of Proteins via A_{280}

--> *This method only works with proteins containing aromatic residues*

- start the Cary WinUV program "Simple Reads" (or "Scan") and let the UV-lamp warm up
- dilute protein solution (if necessary) in ddH_2O (or buffer) and mix gently (100µL total)
- blank UV spec. against ddH_2O (or buffer)
- measure A_{280} (make sure that A_{280} reading is between 0.1 and 1.0!!!) (or scan 250-290nm)

A_{280} x (dilution factor) : $\varepsilon_{protein}$ = $C_{protein}$ [M] in undiluted sample

Absorption maxima of aromatic residues:

Tryptophane	(Trp, W)	280nm	$\varepsilon_{280} = 5600\ M^{-1}\ cm^{-1}$
Tyrosine	(Tyr, Y)	274nm	$\varepsilon_{280} = 1400\ M^{-1}\ cm^{-1}$
Phenylalanine	(Phe, F)	257nm	$\varepsilon_{280} = 200\ M^{-1}\ cm^{-1}$