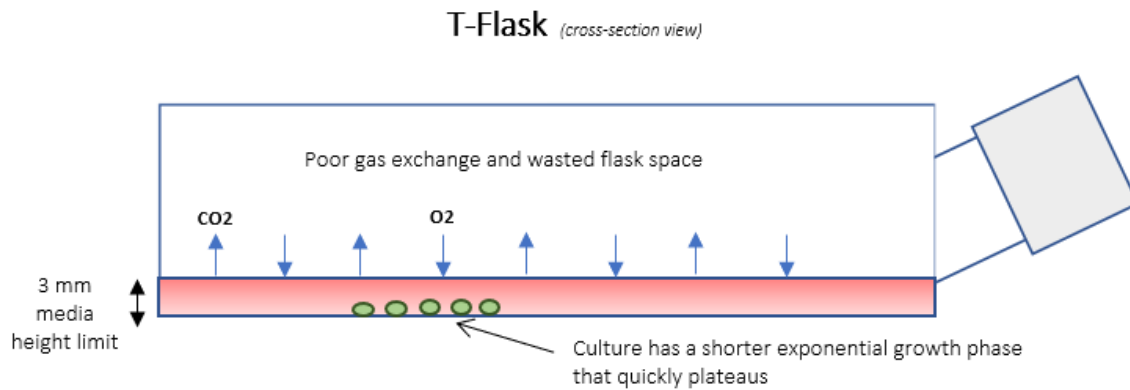


# Suspension Cell Culture in G-Rex<sup>®</sup> Plates and EZ Flask

Hybridomas, CHO, B-Cells, Jurkat, THP-1 etc...

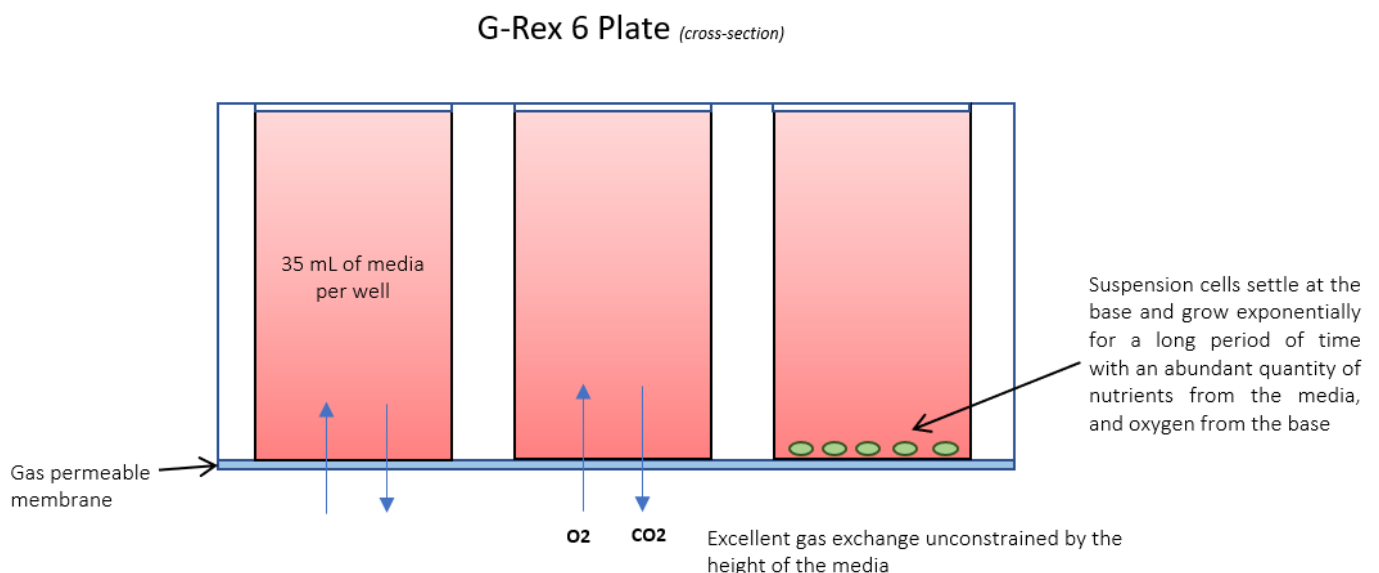
## T-Flasks are not optimally designed for suspension cell culture



Adequate gas exchange in T-Flasks can only be ensured by applying a media height limit of 3mm. This means that T-Flasks can only hold a very low amount of media relative to the total space they take up and, of course, regular cell passaging is needed.

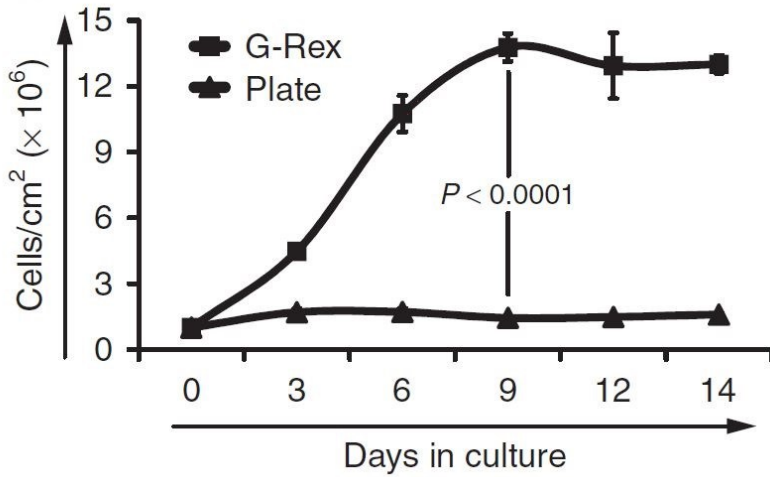
## Improved gas exchange resolves the media height problem

There is no height restriction on media added to cells in a G-Rex Plate or EZ Flask because gas exchange takes place across a base membrane that is permeable to oxygen and carbon dioxide. Cells remain fully oxygenated at all times.



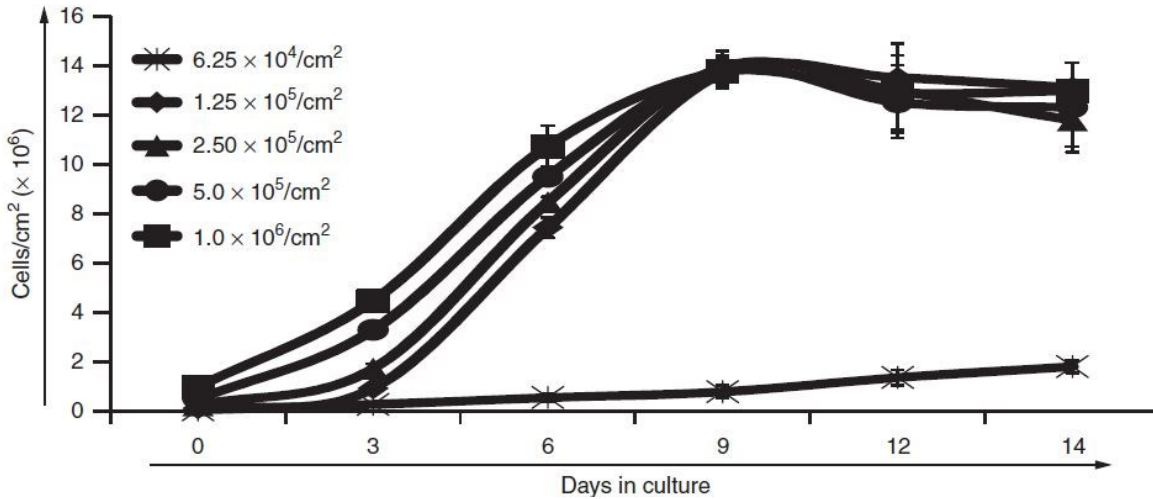
Following inoculation, suspension cells settle above the base gas exchange membrane. A very efficient and constant transfer of O<sub>2</sub> and CO<sub>2</sub> enables cell densities to rapidly go much higher than in T-Flasks without the need for passaging or other user interventions. In G-Rex Plates and in EZ Flasks cells can grow exponentially over a period of days limited only by the type and amount of media used. These devices provide a very convenient means to generate large numbers of hybridomas, for example, and to produce a significant small batch quantity of high titer monoclonal antibody. With a good clone, the 1 Litre EZ-Flask might produce around 150mg of monoclonal antibody with no user cell culture interventions apart from filling, inoculation and the final harvest.

**G-Rex supports higher cell number per surface area compared to a standard culture plate :**

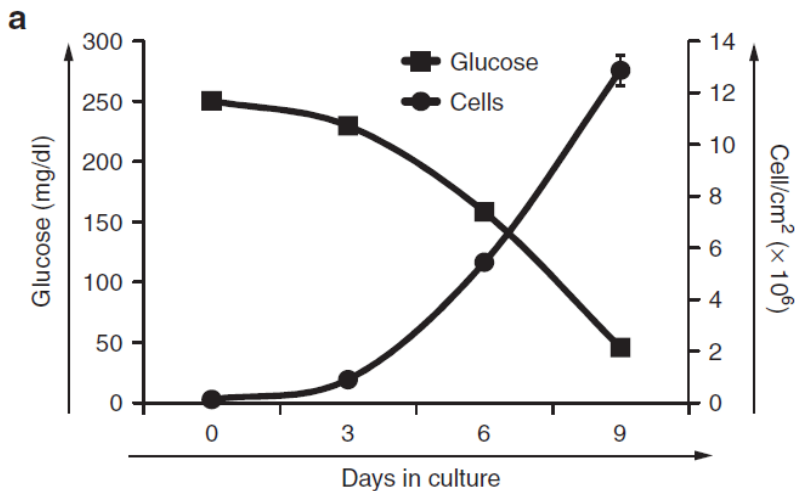


Data were generated using K562 line in a G-Rex device specific for CAR-T therapy (10ml volume per cm<sup>2</sup> membrane).

**G-Rex requires a minimum density of cells seeded per cm<sup>2</sup> in order for expansion to occur**



**Glucose consumption correlates inversely with cell numbers**



Data were generated using K562 line in a G-Rex device specific for CAR-T therapy (10ml volume per cm<sup>2</sup> membrane).

**Products available for R&D use** N.B. KDBIO does not supply for T-Cell therapy related applications

Product Description	Wells per device	Membrane Area	Volume (per well)	Minimum Inoculum (total cells)
G-Rex 6 Plate	6	10 cm <sup>2</sup>	35ml	1E6
G-Rex 24 Plate	24	2 cm <sup>2</sup>	7ml	1E5
EZ Flask 1 Litre	1	200cm <sup>2</sup>	1000 ml	1E7



Grow up to 2 billion cells  
in 1 Litre



Grow up to 200 million cells  
per 35ml well



Grow up to 40 million cells  
per 7ml well

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