## Getting Started with G-Rex<sup>®</sup> Plates

## Introduction

G-Rex Plates are unique multi-well plates incorporating a gas exchange membrane at the base of each 40ml volume well. Suspension cells settle above the gas exchange membrane and remain efficiently oxygenated during continuous cell expansion. Cell passaging is not required. The growth of the cells is limited by the media type, volume and state of depletion of the media. Over a period of 10 days with one re-feeding it should be possible, with many types of suspension cells, to expand cell numbers between <u>40 to 100 times</u> the original number seeded.

	Volume per well	Area of base membrane	Minimum cells to inoculate
G-Rex 6	35 ml	10 cm2	1.25e6
G-Rex 24	7 ml	2 cm2	2.5e4

It is recommended to inoculate 2.5 million hybridomas into no less than 35ml. Alternatively, inoculate around 1 million cells into 20ml and top up the media after 1 or 2 days. The maximum cells/cm<sup>2</sup> that can be supported by this gas exchange technology is between 10 and 30 million cells/cm<sup>2</sup> of base membrane.

## Removing media and recovering cells

Cells will remain on the gas exchange membrane during medium removal if the aspirating pipette tip is kept close to the meniscus and is not allowed to get close to the cells.

To recover cells, remove 75% of media, swirl to dislodge and suspend cells then recover this volume with the cells.

## **Typical applications**

- Quickly grow different clones for comparisons of production rates and product characteristics.
- Conveniently generate useful amounts of monoclonal antibody from hybridoma clones
- Vary culture parameters to optimize conditions for productions with EZ-Flask which represents a 20x scale up vs. 1 well of a G-Rex 6-Well Plate. (EZ Flask Cat.# KDW0010 is a 1 litre single compartment flask with 200cm2 basal gas exchange membrane)

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