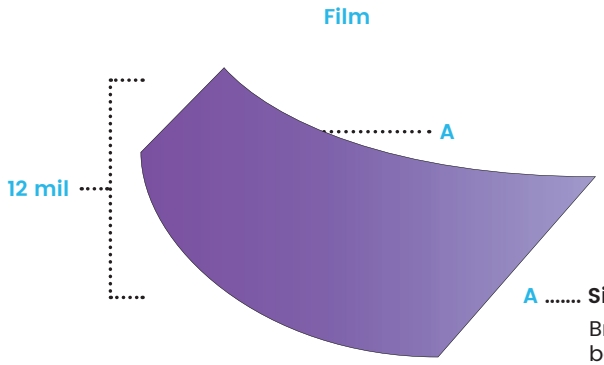
EXP-Pak™

A Cell Expansion Biocontainer

charterMedical

- Integrated tubing allows for closed system filling, feeding, and sampling
- Gas permeable film
- Reusable sampling valve for in-process testing
- Scalable, user-friendly design
- Cell expansion observed with multiple cell models



A ..... Single Layer Polyolefin Film
Breathable, non-oxygen barrier for optimum cell growth

Cell Expansion

- Validation included expansion of Tumor Infiltrating Lymphocytes (TIL) and Human Th2 Rapa cells
- Total viable count and total nucleated cell counts evaluated
- Cell expansion demonstrated for both cell models

Standard Applications

- Expasion and culture of non-adherant cells in biotech and biopharma industrial and research applications

Ordering Information

Catalog #	Description	Case Qty.
EXP-50	30mL fill volume at 1cm thick cell expansion bag with two leads and female luers, and dockable fill line with sampling valve	24
EXP-500	190mL fill volume at 1cm thick cell expansion bag with two leads and female luers, and dockable fill line with sampling valve	12
EXP-1L	380mL fill volume at 1cm thick cell expansion bag with two leads and female luers, and docakble fill line with sampling valve	12
EXP-3L	630mL fill volume at 1cm thick cell expansion bag with two leads and female luers, and dockable fill line with sampling valve	12
EXP-5L	1250mL fill volume at 1cm thick cell expansion bag with two leads and female luers, and dockable fill line with sampling valve	12

Recommended Working Volumes

Product	Minimum Starting Volume*	Minimum Starting Cell Volume*	Maximmum Expansion Volume*	Maximum Cell Expansion Number*	Volume at 1cm Thickness
EXP-50	10mL	2 x 10^5 cell/mL	45mL	1.5 x 10^6 cells/mL	30mL
EXP-500	100mL	2 x 10^5 cell/mL	350mL	1.5 x 10^6 cells/mL	190mL
EXP-1L	300mL	2 x 10^5 cell/mL	700mL	1.5 x 10^6 cells/mL	380mL
EXP-3L	550mL	2 x 10^5 cell/mL	2000mL	1.5 x 10^6 cells/mL	630mL
EXP-5L	1100mL	2 x 10^5 cell/mL	3500mL	1.5 x 10^6 cells/mL	1250mL

***Values are suggested only. Each cell model system is unique and should be optimized for maximum and minimum values**

Film Physical Test Data (pre-gamma irradiation)

Property	Test Protocol	Typical Values
Tensile Strength at Break, MD/TD (psi)	ASTM D882	3200/2900
Elongation at Break, MD/TD (%)	ASTM D882	650/700
Modulus at 100% Elongation, MD/TD (psi)	ASTM D882	550/500
Tear Resistance, MD/TD (Lbf/in.)	ASTM D1004	200/250
Low Temp. Brittleness, (Masland) (°C)	ASTM D1790	Below -100°C
Glass Transition Temperature (T_g)	DSC	-48°C
Specific Gravity (g/cm^3)	ASTM D792	0.92
Particulates	USP <788>	Pass
Oxygen Transmission Rate cm^3/M^2/24 hrs @ 23°C, 0% RH	ASTM D3985	2200
Carbon Dioxide Transmission Rate cm^3/M^2/24 hrs @ 23°C, 0% RH	ASTM F2476	9000
Moisture Vapor Transmission g/M^2/24 hrs @ 23°C	ASTM F1249	3.9

*Test performed on 0.014" film

Film Biocompatibility Data (post-gamma irradiation)

Property	Test Protocol	Average Value
USP Class VI	USP <88>	Pass
Cytotoxicity	ISO 10993-5	Pass
Hemolysis	ISO 10993-4	Pass

MEDICAL DEVICES
ISO 13485:2016
NSAI Certified

**** EXP-Pak™ is not intended for clinical, diagnostic, or therapeutic uses with humans**

All data and statements concerning these products may be considered as being indicative of representative properties and characteristics obtainable. We make no warranty, express or implied, concerning actual use or results because of industry specific influences.

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