

# Protein Production Questionnaire

Please answer the following questions as completely as possible. The information here will be kept with utmost confidentiality and will only be used to generate a customized protocol for your facility.

## I. Customer Information

<b>CONTACT PERSON</b> <input type="text"/>	<b>COMPANY NAME</b> <input type="text"/>
<b>DESIGNATION</b> <input type="text"/>	<b>CONTACT NUMBER</b> <input type="text"/>
<b>DEPARTMENT</b> <input type="text"/>	<b>EMAIL ADDRESS</b> <input type="text"/>

## I. General Details

<b>1. Target Product</b>	<input type="checkbox"/> Secreted Protein <input type="checkbox"/> Non-secreted Protein <input type="checkbox"/> Monoclonal Antibody <input type="checkbox"/> <input type="text"/>
<b>2. Cell Type</b>	<input type="checkbox"/> Adherent cell <input type="checkbox"/> Suspension cell <input type="checkbox"/> Microbial <input type="checkbox"/> Stem Cell

## II. Experiment Details

### a. Cell Culture

<b>1. Cell Line</b>	<input type="checkbox"/> CHO <input type="checkbox"/> HEK 293 <input type="checkbox"/> Hybridoma for IVD ( <i>In vitro</i> Diagnostics) <input type="checkbox"/> Hybridoma for Therapeutics <input type="checkbox"/> <input type="text"/>
<b>2. Any special features or peculiarities of the cell line or methods</b>	<input type="text"/>

**3. Intended Use**

- Human Use (Production)       Human Use (Research)  
 Animal Use (Production)       Animal Use (Research)

**4. Current Culture System**

- T-flask:  cm<sup>2</sup> x  Pcs  
 Petri Dish:  mm x  Pcs  
 Roller Bottle:  cm<sup>2</sup> x  Btls  
 Spinner flask:  mL x  Btls  
Carriers:   
 Cell Factory / Cell Stack (Multi-layer):  cm<sup>2</sup> x  Pcs  
*(total surface area)*  
 Stirred-tank Bioreactor:  mL x  Vessel  
Carriers:   
 Others

**5. Media Volume Capacity**

- Working Volume Capacity:  mL / Pc (or /Btl)  
 Total Volume Capacity:  mL / Batch

**6. If carriers are used, please specify type and amount of carrier.**

- Microbeads, Specify:   
 Fibrous matrices, Specify:   
 Others, Specify:   
**Amount of carriers:**  grams

**7. Medium exchange frequency for current system - During Cell Culture**

- 24 hours (1 day)       Other  
 48 hours (2 days)       hours (  days)  
 72 hours (3 days)      **Media volume per change:**  mL

**8. Medium exchange frequency for current system - Post Infection**

- 24 hours (1 day)       Other  
 48 hours (2 days)       hours (  days)  
 72 hours (3 days)      **Media volume per change:**  mL

9. Culture condition during cell culture

- Media
- Serum
- Temperature
- CO<sub>2</sub> concentration of incubator

10. Other additives (eg., sodium bicarbonate, Hepes buffer etc)

## II. Experiment Details

### a. Cell Culture

11. Glucose Concentration in initial culture medium

 g/L

12. Cell Harvesting (Cell dissociation) required

- Yes
- No

13. Cell Harvest (Cell Dissociation) method if have

- Trypsin
- Enzymatic Dissociation Reagents; Specify:
- Non-Enzymatic Dissociation Reagents; Specify:
- Others

14. Cell Quantification

- Manual counting
- Auto-counter
- Nuclei counting
- Others

15. Access to a bio-analyzer for measuring glucose, lactate, glutamine, etc.

- Yes
- No

16. System preference

- Prefer Single-Use
- Prefer Multiple-Use
- No Preference

17. Current System Annual dose (product quantity)

18. Current System average total cell density (per single system eg., per 1 roller bottle)

Seeding Cell Density:

Harvesting End Cell Density:

19. Do you have scale up plan?

Yes

No

20. Expected Scale when scaled up (Cell Density, Doses etc.)

## b. Protein Production

21. Protein extraction method

Cell Harvest

Freeze/Thaw

Medium Harvest

Lysis Buffer

Others:

22. Harvesting process for medium harvest extraction method

Single harvest

Multiple harvest;  
Interval time  hours for  days

Others

## c. CelCradle™ System

23. Seeding  $1 - 3 \times 10^8$  cells be difficult?

Yes

If yes, how many cells do you plan to seed?

No

24. Will the CO<sub>2</sub> incubator be exclusively used for the CelCradle™ System?

Yes

No

25. Can you adjust the CO <sub>2</sub> concentration of incubator?	<input type="checkbox"/> Yes <input type="checkbox"/> No
26. What are the challenges / limitations you experience with your current system?	<input type="text"/>
27. What is your expectation using our system?	<input type="text"/>
28. Is there any changes required from your existing process protocol?	<input type="checkbox"/> Yes <input type="checkbox"/> No
29. With Tide-motion bioreactor, is it okay to change the process protocol?	<input type="checkbox"/> Yes <input type="checkbox"/> No

**Important:** Save the completed PDF form (use menu File - Save).