

Serum-Free Medium for Animal Cell Culture ASF Medium

# ASF Medium 104N

ASF Medium for Pharmaceutical Manufacturing

*Ajinomoto Serum Free Medium  
Animal Component Free Medium  
All Components Are Chemically Defined*

**AJINOMOTO®**

# To Serve as a Medium for Pharmaceutical Manufacturing

ASF Medium 104N is a serum-free medium that is characterized by "notable proliferation" and a "high matter productivity," as well as by its exclusive use of established components involving no "components of animal origin." Because it can avoid contamination with substances derived from the living bodies of animals, ASF Medium 104N can be used with a sense of security as a medium for pharmaceutical manufacturing.

## Features of ASF Medium 104N

**1** Serum-free medium using no animal components.

ASF Medium 104N contains no components of animal origin and maintains the high level of matter productivity that the conventional ASF Medium 104 provides. It can be used as an assured medium for pharmaceutical manufacturing.

**2** Notable proliferation is guaranteed for hybridoma, CHO cells, etc.

ASF Medium 104N provides favorable proliferation comparable to serum mediums, for hybridoma and CHO cells that are often used in pharmaceutical manufacturing.

**3** A high productivity of antibodies with hybridoma, CHO cells, etc.

A high productivity, typically of monoclonal antibodies, is achieved in every culture type from flask scales to continuous mass-production culture apparatus.

**4** Culture products are quite easy to purify using only a combination of established components.

ASF Medium 104N, which is a mixture of established components only, makes it easy to isolate and purify biologically active substances that are produced in the culture solution -- unlike serum medium into which unestablished components are mixed.

**5** Autoclavable.\*

Heat sterilization by autoclaving can be applied during the preparation phase.

\* This product is made up of three components: base, buffer and additive. Of these, the base and buffer are autoclavable. The additive is pre-sterilized.

**6** Consistent quality among lots is guaranteed.

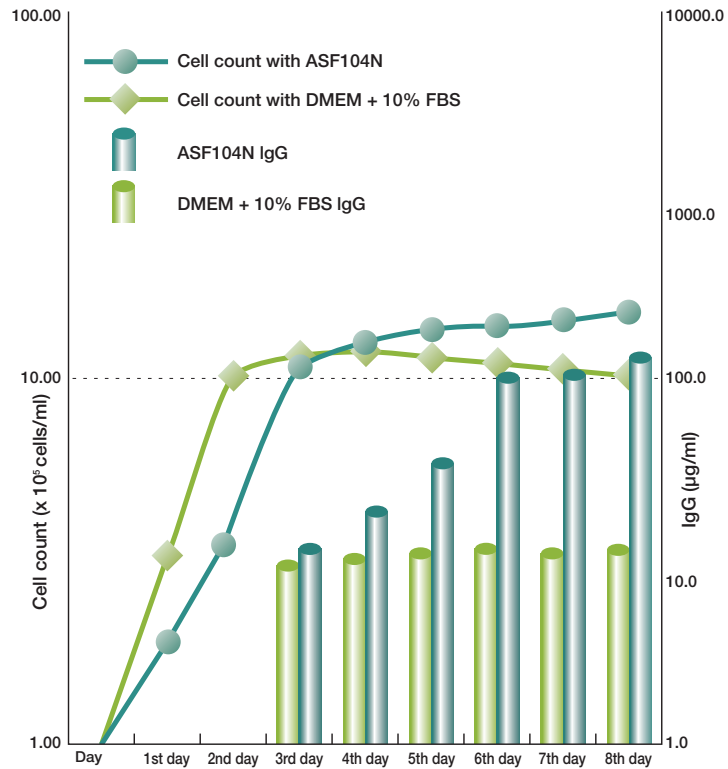
The product is manufactured under strict quality control, so consistent quality among different lots is guaranteed. It is ready for heavy demand in such applications as pharmaceutical manufacturing.

### SJK hybridoma cell proliferation and mouse IgG production using ASF Medium 104N

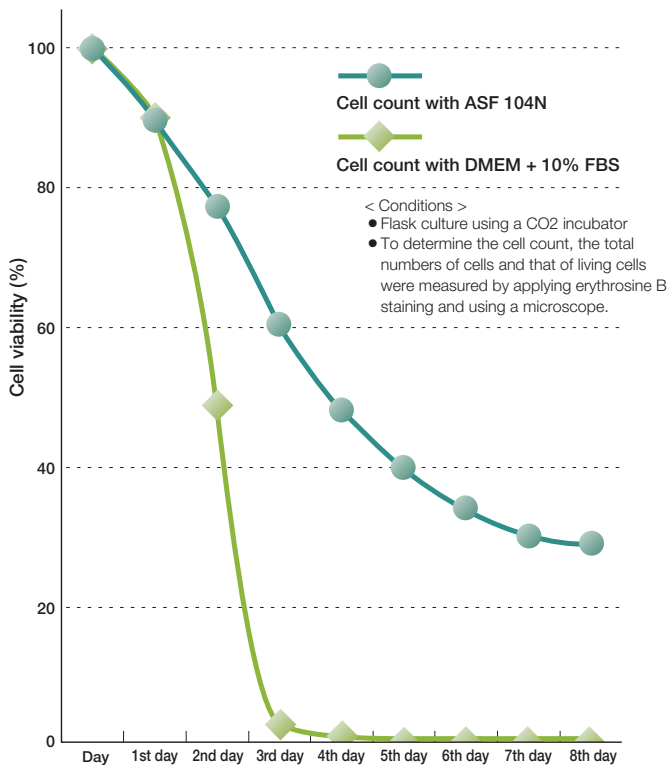
With ASF Medium 104N, notable cell proliferation and antibody production were identified compared to the DMEM medium to which 10% FBS was added.

< Conditions >

- Flask culture using a CO2 incubator
- The cell count was determined using erythrosine B staining.
- The IgG level was determined by applying immunofluorescence (ELAISA) to the culture supernatant fluid.

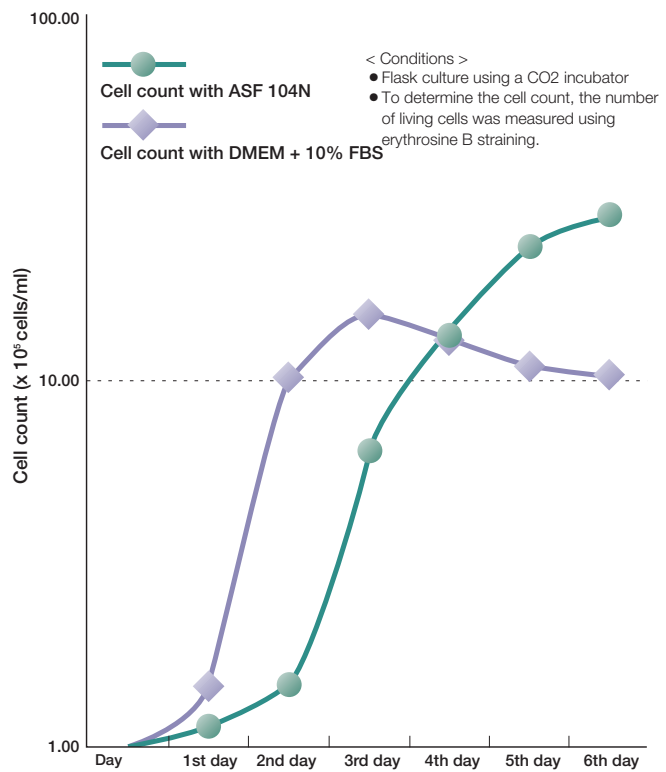


### Viability of SJK hybridoma cells using ASF Medium 104N



### Proliferation of CHO cells using ASF Medium 104N

With ASF Medium 104N, notable cell proliferation was identified compared to the HAM12 medium to which 10% FBS was added.



< Conditions >

- Flask culture using a CO2 incubator
- To determine the cell count, the number of living cells was measured using erythrosine B staining.



## Package Variations for ASF Medium 104N

<b>2L</b>	<b>Powder medium</b> Base (13.8 g x 2 pcs.) / Buffer (4.5 g x 2 pcs.) / Additive (freeze-dried vial: 0.54 g x 2 pcs.)
<b>10L</b>	<b>Powder medium</b> Base (138 g) / Buffer (45 g) / Additive (freeze-dried vial: 0.54 x 10 pcs.)

## Preparation Method (using autoclaving)

1. This product allows you to prepare a total amount of 10L (2L) of the medium. It also allows for preparation in units of 1L as required.
2. Determine the required amount of base and dissolve it in purified water (the amount of purified water should be 1/2 of the medium to be prepared).
3. Dissolve the required amount of buffer in purified water in the same manner as for the base.
4. Autoclave the dissolved agents from steps (2) and (3) for 20 minutes each at a temperature of 121 °C.
5. After cooling, mix them uniformly.
6. Dissolve the desired pieces of additive in part of the mixture from step (5) or in a small amount of sterile water (about 10 ml per piece of vial). Add the resulting mixture to (5), and then dilute and mix it uniformly all over.
7. Keep the prepared medium in cold storage.

## AFS Medium Series

Trade name	Volume	Applications	Features
<b>ASF Medium 104N</b>	2L	Intended for suspended cells (hybridoma and CHO, etc.)	Contains no animal components (Intended for pharmaceutical manufacturing)
	10L		
<b>ASF Medium 103</b>	10L	Intended for suspended cells (hybridoma, CHO, etc.)	Contains albumin
<b>ASF Medium 104</b>	2L	Intended for suspended cells (hybridoma, CHO, etc.)	Contains no albumin (Intended for proliferation/production)
	10L		
<b>ASF Medium 301</b>	10L	Intended for adherent cells	Contains EGF (Intended for proliferation/production)

If you have any questions about the product, please refer them to the following:

### Tokyo Amino Acids Group, Ajinomoto Takara Corporation

Annex to Sanei Bldg., 2-17-11, Kyobashi, Chuo-ku, Tokyo 104-0031  
Tel: 03-3563-7577 Fax: 03-3535-3687

### Osaka Amino Acids Group, Ajinomoto Takara Corporation

New Ajinomoto Bldg., 1-8-2, Nishi Tenman, Kita-ku, Osaka-shi 530-0047  
Tel: 06-6366-2323 Fax: 06-6361-5691

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1-15-1, Kyobashi, Chuo-ku, Tokyo 104-8315 Tel: 03-5250-8209 Fax: 03-5250-8273

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