

## Corning® Nu-Serum™ and Nu-Serum IV

### Growth medium supplements for reduced-serum conditions

#### Introduction

Reduced serum and serum-free cell culture conditions are rapidly becoming requirements for state of the art research. Corning Nu-Serum growth medium supplements provide low protein alternatives to newborn calf, fetal bovine, and other sera routinely used for cell and tissue culture.

While serum played an irreplaceable role in the early development of the ability to culture cells and tissues, it is now known that the high protein content of serum can complicate protein purification, virus production, purification and concentration, and the production and screening of monoclonal antibodies.

In comparison to standard Fetal Bovine Serum (FBS), Nu-Serum growth medium supplements are a more cost-effective method, providing the same results as a 1:1 replacement for FBS. Nu-Serum replacements have been used successfully on a large variety of human and animal cell types, many of which were previously difficult to grow.

#### Nu-Serum and Nu-Serum IV Features

- ▶ Full volume replacement for FBS
- ▶ Cost-effective alternative to FBS
- ▶ Facilitates protein purification, virus production, monoclonal antibody product and screening, similar to classical FBS. It increases the frequency of successful transfection of cells.
- ▶ Filtered (0.2 µm membrane)
- ▶ Supports a large variety of human and animal cell types including:
  - Human and chick embryo fibroblasts<sup>1,2</sup>
  - HeLa cells<sup>3</sup>
  - Mouse L cells<sup>4</sup>
  - HepG2 Human hepatocellular carcinoma cells<sup>5</sup>
  - BALB/c3T3 cells<sup>6</sup>
  - Cos cells<sup>7</sup> normal rat kidney cells<sup>8</sup>
  - Human respiratory epithelial cells<sup>9</sup>
  - Rat and chick neurons<sup>10,11</sup>
  - Osteoblasts and primary chondrocytes<sup>12</sup>
  - Human bladder carcinoma cells<sup>13</sup>
  - Human melanomas<sup>14</sup>
  - Hybridomas derived from Sp/2 and NS-1 myelomas<sup>15</sup>



## Potential savings using Corning® Nu-Serum™ as a replacement for FBS

Medium w/10% FBS		Medium w/5% FBS		Medium w/10% Nu-Serum		Medium w/5% Nu-Serum	
500 mL medium	\$15.00	500 mL medium	\$15.00	500 mL medium	\$15.00	500 mL medium	\$15.00
55 mL FBS	\$27.50	27.5 mL FBS	\$13.50	55 mL Nu-Serum	\$20.90	27.5 mL Nu-Serum	\$10.45
<b>Total cost</b>	<b>\$42.50</b>	<b>Total cost</b>	<b>\$28.50</b>	<b>Total cost</b>	<b>\$35.90</b>	<b>Total cost</b>	<b>\$25.45</b>

Assumptions: Medium costs of \$15/500 mL bottle; premium fetal bovine serum from USDA approved countries costs of \$250/500 mL bottle. Each time a 500 mL bottle is used with a range of 5-10% supplementation, there are significant savings to the customer.

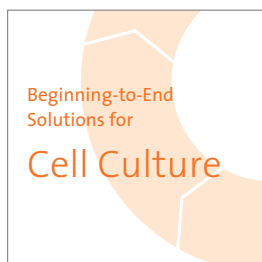
## Ordering Information

VWR Cat. No.	Corning Cat. No.	Description	Serum Base Source	Size	Qty/Pk
<b>47743-632</b>	355100	Corning Nu-Serum Growth Medium Supplement	25% Newborn Calf Serum	100 mL	1
<b>47743-700</b>	355500	Corning Nu-Serum Growth Medium Supplement	25% Newborn Calf Serum	500 mL	1
<b>47743-634</b>	355104	Corning Nu-Serum IV Growth Medium Supplement	25% Fetal Bovine Serum	100 mL	1
<b>80089-542</b>	355504	Corning Nu-Serum IV Growth Medium Supplement	25% Fetal Bovine Serum	500 mL	1

## References

- Davis, M.H., Arch Biochem. Biophys., 251:498 (1987)
- Goodman, S.L., et al., Cell, 41:1029 (1985)
- Medh, R.D., et al., Blood, 80:981 (1992)
- Chu, Y.-W., et al., Proc. Nat. Acad. Sci. USA, 20:4261 (1993)
- Lucore, D.C., et al., J. Biol. Chem, 263:15845 (1988)
- Guity, M., et al., J. Cell Biol., 116:1055 (1992)
- Attisano, L., et al., Cell, 68:97 (1992)
- Cluett, E.B., et al., J. Cell Biol., 120:15 (1993)
- Devalia, J.L., et al., Resp. Med., 84:303 (1990)
- Rage, F., et al., Endocrinol., 130:1056 (1992)
- Hory-Lee, F., et al., Proc. Nat. Acad. Sci USA, 90:2613 (1993)
- Elfort, P.R., et al., Endocrinol, 127:1635 (1990)
- Guity, M., et al., J. Cell Biol., 111:2765 (1990)
- Matsuo, O., et al., Acta Haematol, Japan, 47:1049 (1984)
- Sjogren-Jansson, E., and Jeansson, S., J. Immunol. Meth., 84:359 (1985)

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