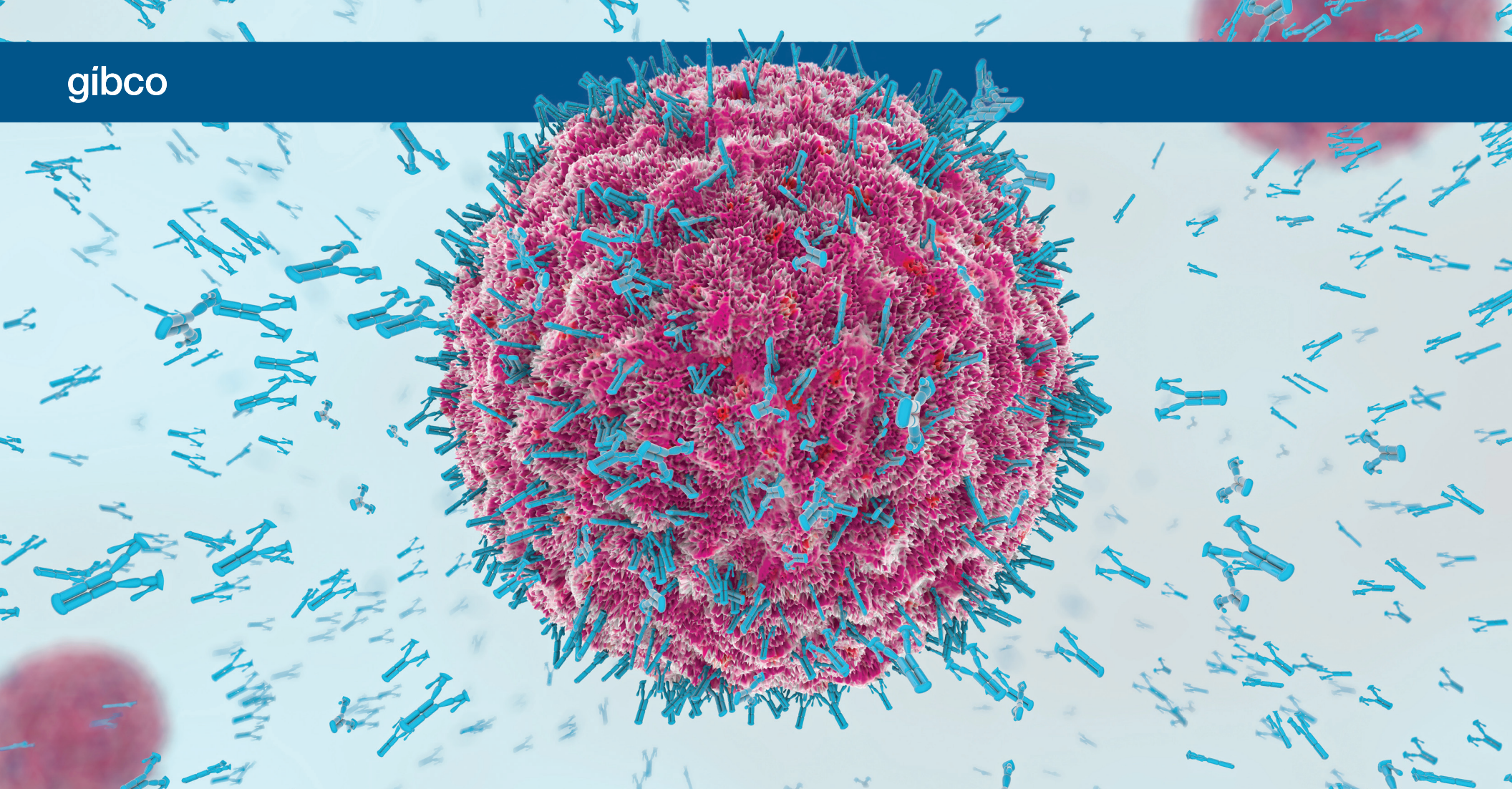


gibco

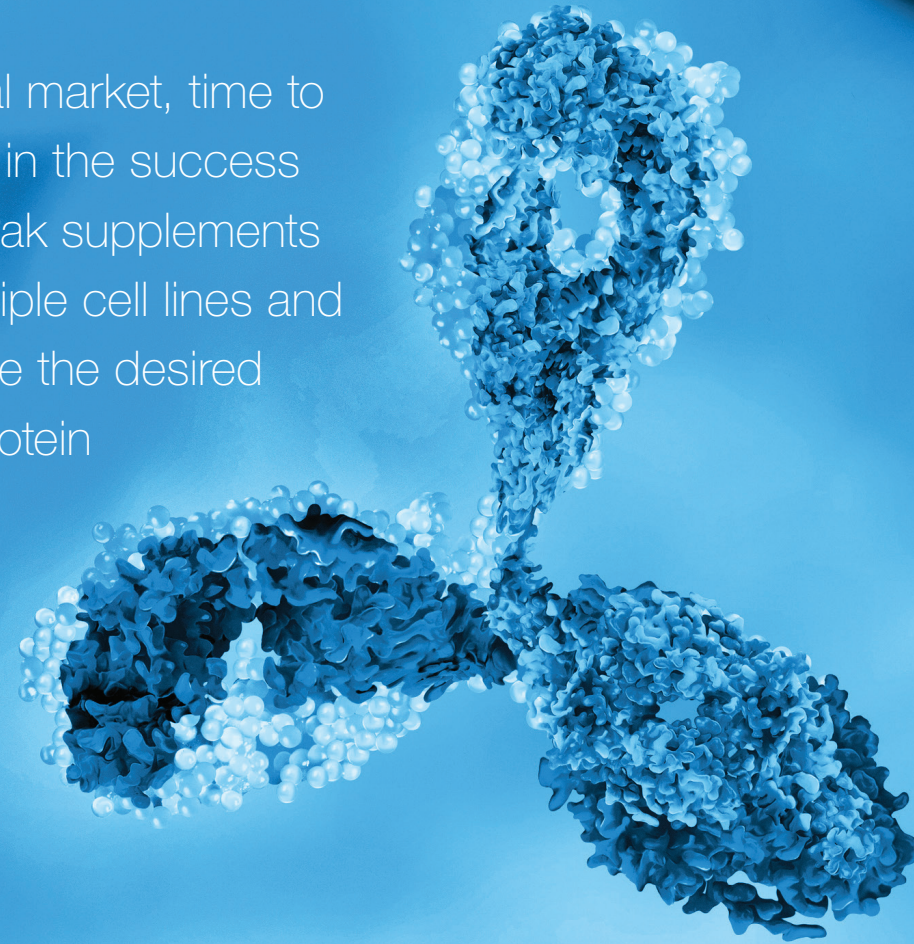


Are you in control of your protein
quality profile?

GlycanMod Pak supplements

ThermoFisher
SCIENTIFIC

In the highly competitive biopharmaceutical market, time to market can be one of the deciding factors in the success of your therapeutics. Gibco™ GlycanMod Pak supplements are uniquely designed to work across multiple cell lines and media, providing greater flexibility to achieve the desired profile. Adding these chemically defined protein quality supplements to your existing cell culture process helps enable you to quickly modify protein galactosylation.



GlycanMod Pak supplements

Chemically defined protein quality supplements designed to increase monoclonal antibody (mAb) galactosylation

With more routine achievement of mAb production targets and the increasing development of biosimilars, bioproduction has turned its focus toward obtaining consistent, desirable protein quality. Proper glycosylation is essential for protein stability and therapeutic functionality.

GlycanMod Pak supplements provide multiple options and greater flexibility in choosing the right supplement for your needs. Uniquely designed to promote galactosylation to achieve a target N-glycan profile in different media formulations and cell expression systems, these supplements give you more control to help you achieve therapeutic success.

Featuring an easy-to-test pack, Gibco™ GlycanMod G100, G125, G150, and G175 supplements are titratable and can be added as needed to achieve the desired galactosylation pattern. GlycanMod Pak supplements offer a solution for your galactosylation needs, helping to get your product to market faster.



Ordering information

Description	Cat. No.
GlycanMod Pak Supplements	215415
GlycanMod G100 Supplement, 100 mL, enriched in micronutrients	215416
GlycanMod G125 Supplement, 100 mL, enriched in carbohydrates and micronutrients	215417
GlycanMod G150 Supplement, 100 mL, enriched in trace elements	215418
GlycanMod G175 Supplement, 100 mL, enriched in carbohydrates and trace elements	215419

Increasing galactosylation across different CHO cell lines

GlycanMod G100, G125, G150, and G175 supplements were added at 0.4% on day 0 to shake flask batch cultures of a CHO-K1 and a CHO DHFR cell line. Growth and production were measured at multiple time points throughout the culture and N-glycan profiles were analyzed at day 10. Each protein quality supplement increased galactosylation in both cell lines while maintaining viable cell density (VCD) and antibody production (Figures 1 and 2).

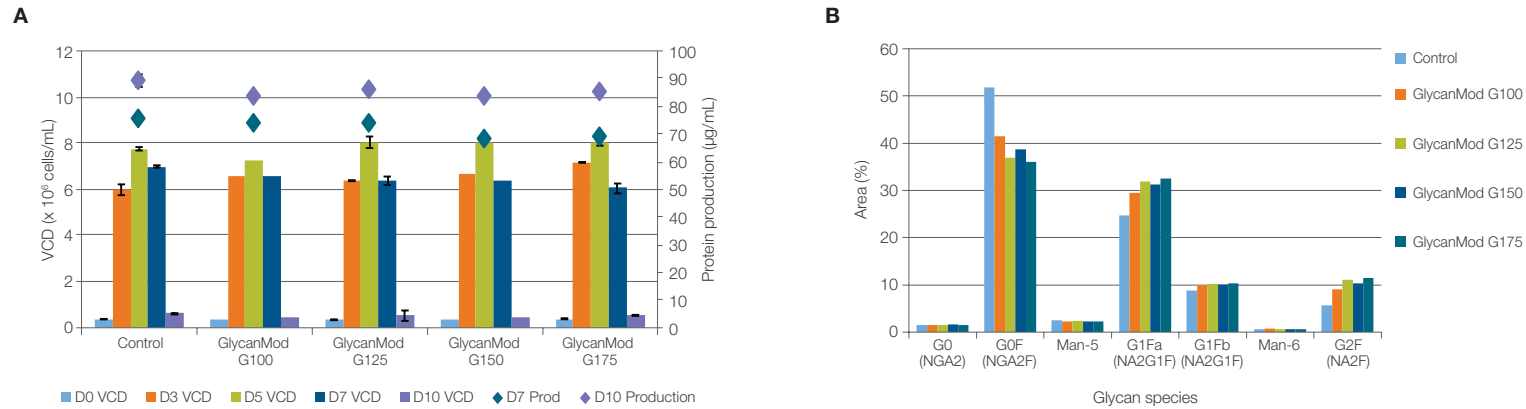


Figure 1. Cell growth and antibody production in CHO-K1 cell line. (A) VCD and antibody production. (B) N-glycan profile.

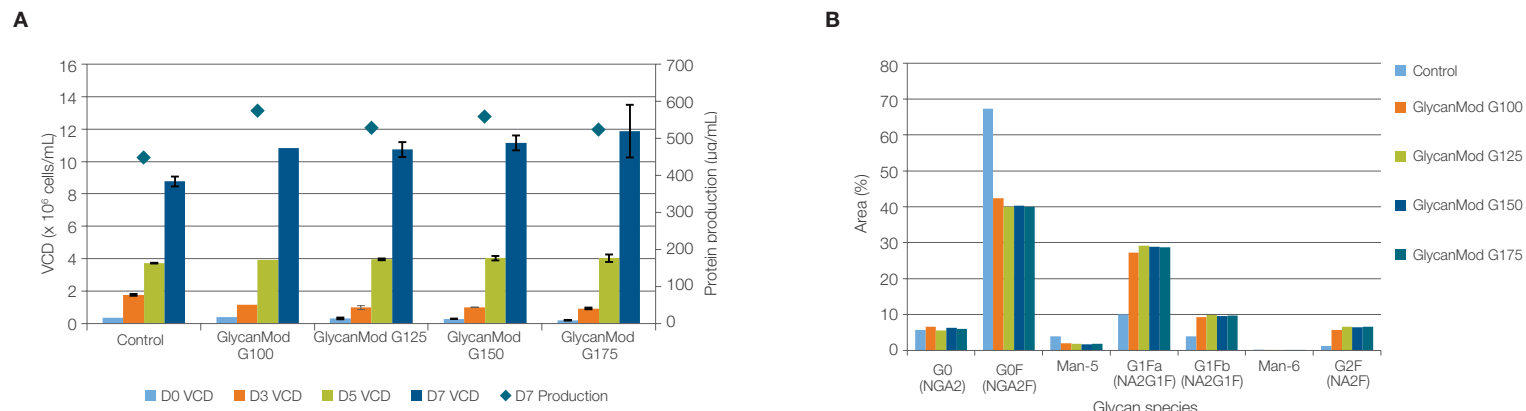


Figure 2. Cell growth and antibody production in CHO DHFR cell line. (A) VCD and antibody production. (B) N-glycan profile.

Optimizing the protein quality profile through titration

GlycanMod Pak supplements were added to a CHO-K1 shake flask batch culture on day 0 in increasing concentrations. Growth and production were measured at multiple time points throughout the culture and N-glycan profiles were analyzed at day 10. Each protein quality supplement produced a concentration-dependent increase in galactosylation, while maintaining cell growth and antibody production (Figures 3–6).

GlycanMod G100 supplement

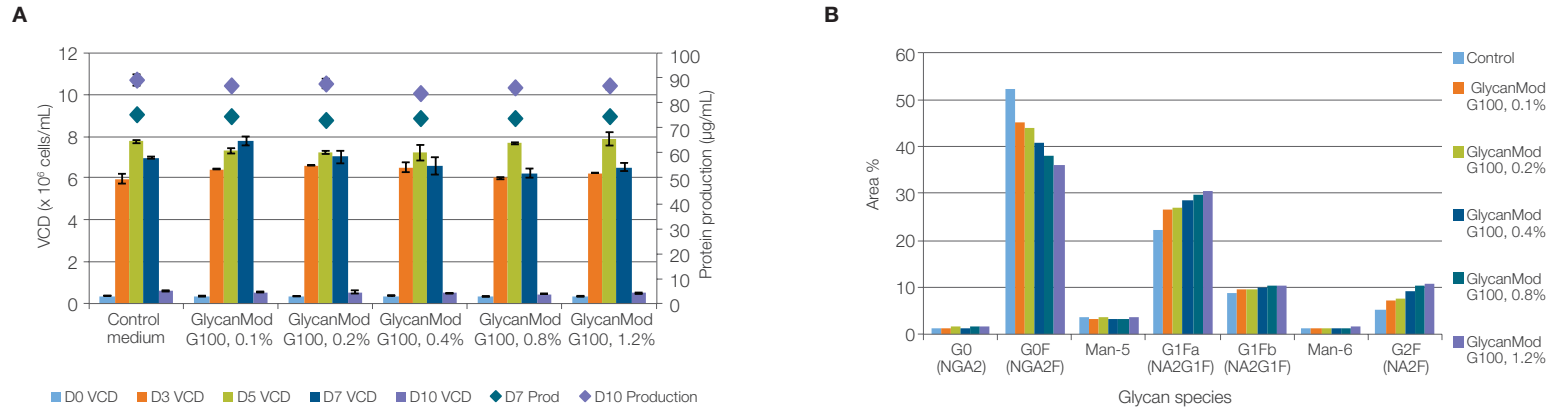


Figure 3. Effect of GlycanMod G100 supplement on growth and antibody production in CHO-K1 cells. (A) VCD and antibody production. (B) N-glycan profile.

GlycanMod G125 supplement

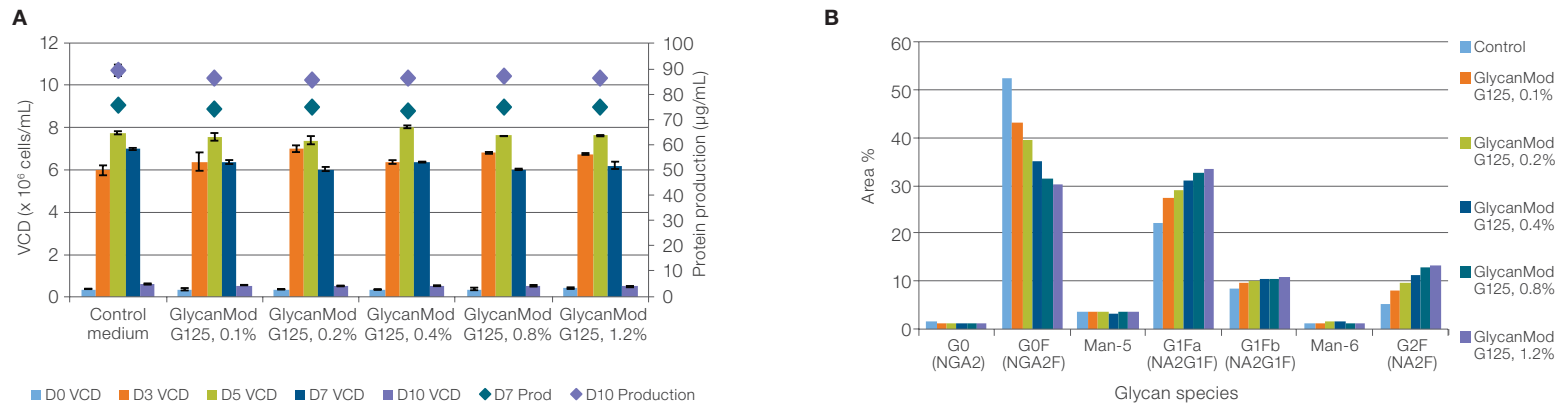


Figure 4. Effect of GlycanMod G125 supplement on growth and antibody production in CHO-K1 cells. (A) VCD and antibody production. (B) N-glycan profile.

GlycanMod G150 supplement

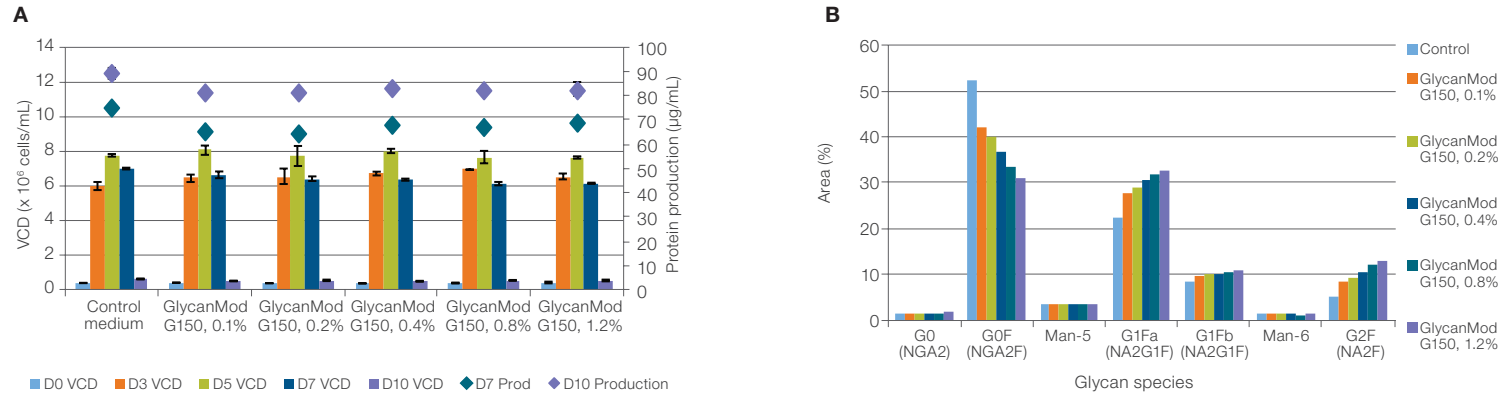


Figure 5. Effect of GlycanMod G150 supplement on growth and antibody production in CHO-K1 cells. (A) VCD and antibody production. (B) N-glycan profile.

GlycanMod G175 supplement

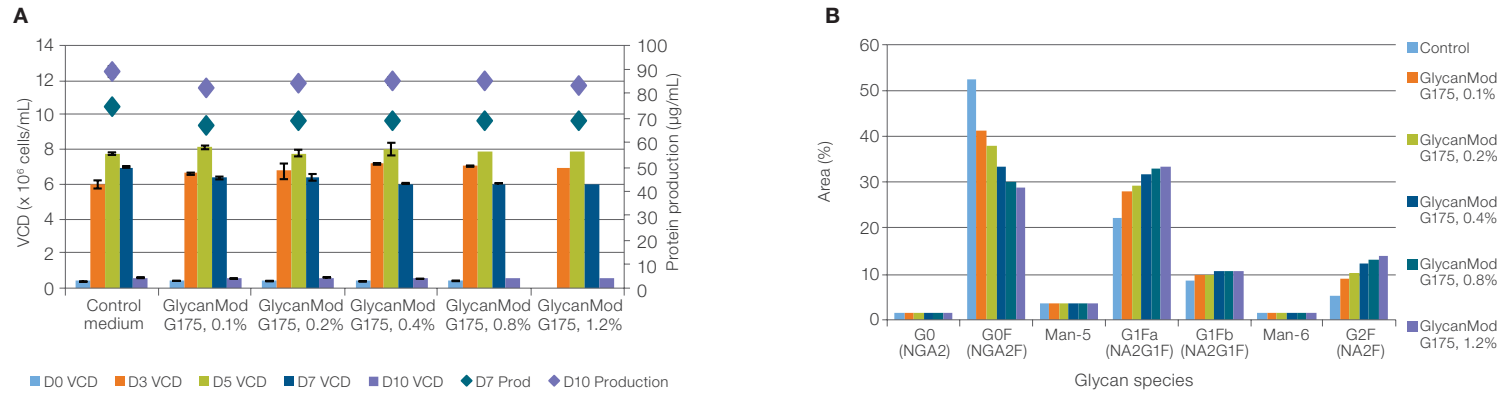


Figure 6. Effect of GlycanMod G175 supplement on growth and antibody production in CHO-K1 cells. (A) VCD and antibody production. (B) N-glycan profile.

Modifying protein quality profiles across different media

The performance of GlycanMod Pak supplements in different chemically defined media was assessed using a CHO DHFR cell line in shake flask cultures. These protein quality supplements were added at 0.4% on days 3 and 5 with antibody production and N-glycan profile measured on day 7 (Figures 7 and 8).

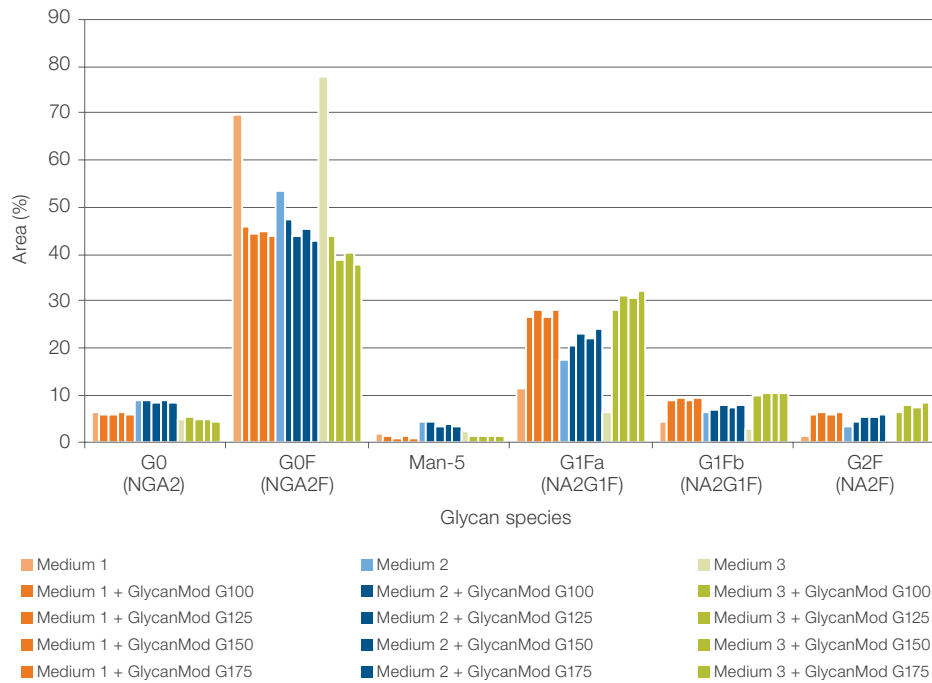


Figure 7. Effectiveness of GlycanMod Pak supplements across different media. This provides options on how and when to add these supplements to achieve the desired N-glycan profile.

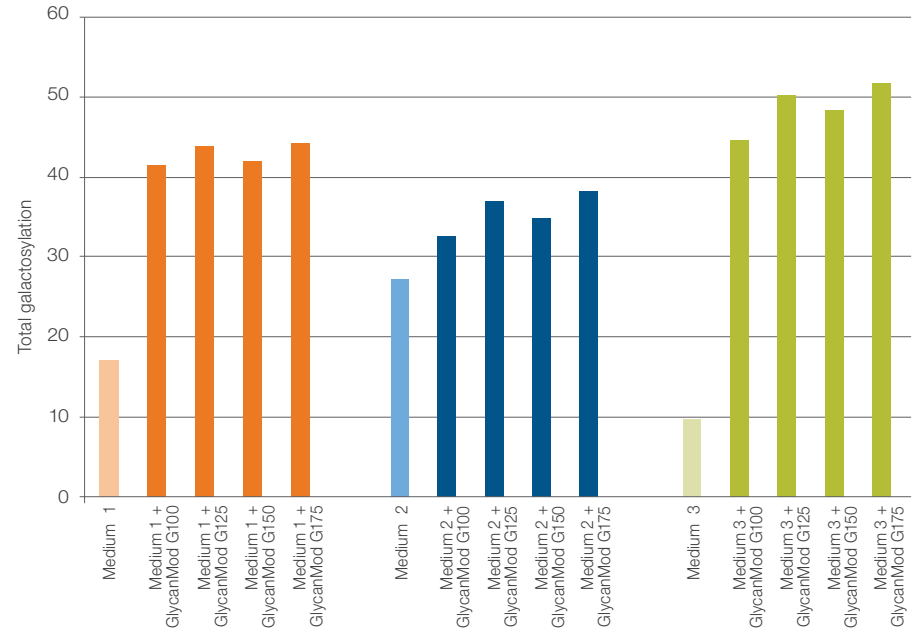
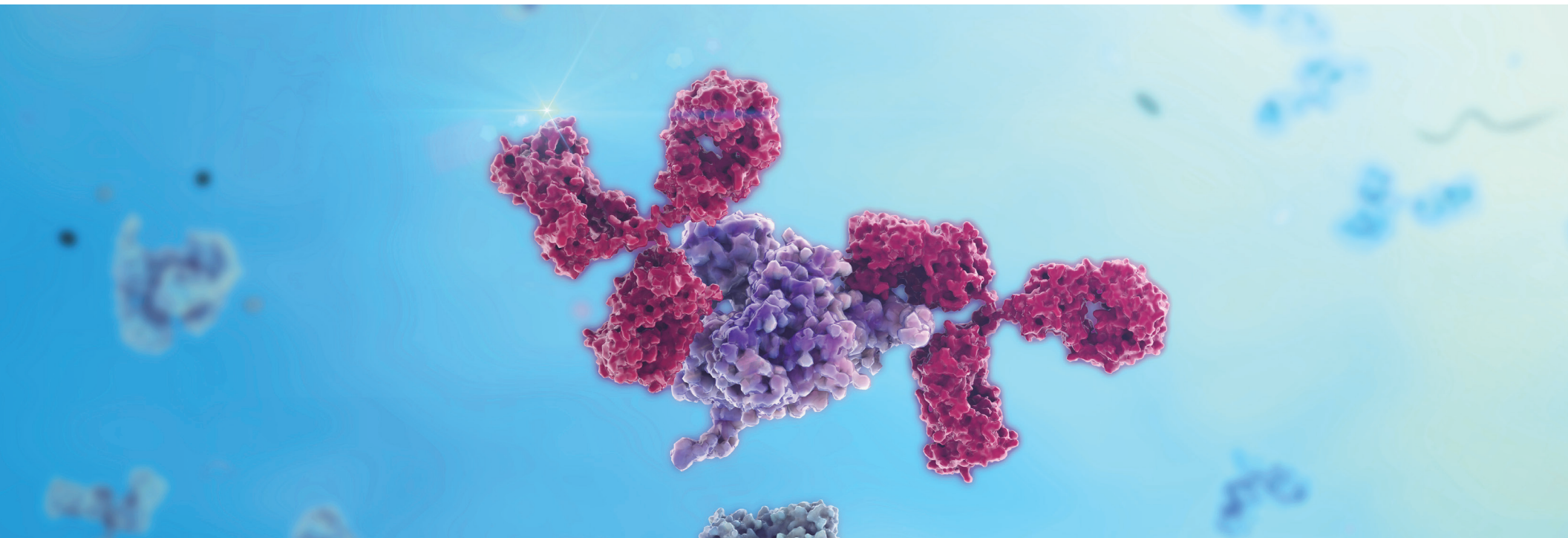


Figure 8. Total galactosylation (G1F + G2F) from the N-glycan profile shown in Figure 7. Addition of the GlycanMod Pak supplements increased total galactosylation to different degrees, depending upon the medium.



Start evaluating

For more information on GlycanMod Pak supplements or any of the protein quality supplements discussed here, please contact your local sales representative.



Find out more at thermofisher.com/advbio

ThermoFisher
SCIENTIFIC

For Research Use Only. Not for use in diagnostic procedures. Product is a prototype and performance characteristics of this product have not been established. © 2019 Thermo Fisher Scientific Inc. All rights reserved. All trademarks are the property of Thermo Fisher Scientific and its subsidiaries unless otherwise specified. **COL32914 0419**