

Technical Brief

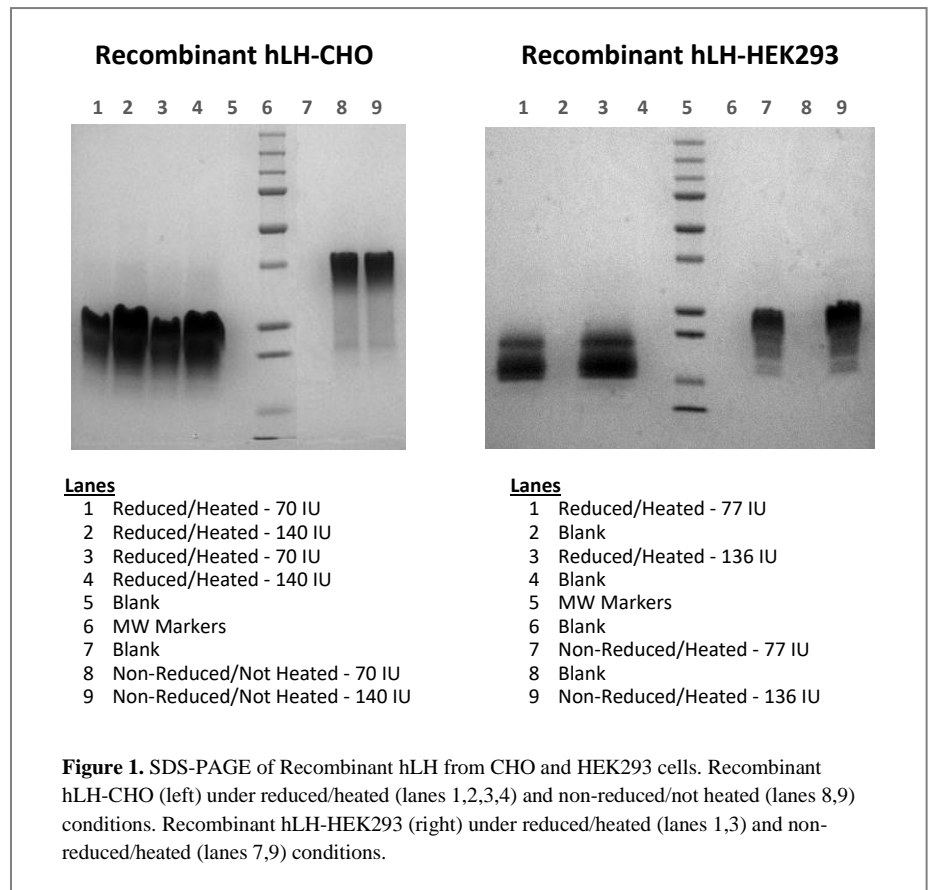
Recombinant Human Luteinizing Hormone

Recombinant Human Luteinizing Hormone (hLH) is now available from Scripps Laboratories for research use and diagnostic assay development. The ongoing global shortage in the supply of human pituitary glands has severely impacted the availability of native hLH to the diagnostic industry. In response to this, Scripps developed Recombinant hLH from CHO and HEK293 cells. Both are reliable and economical alternatives to native hLH. The data presented here demonstrate their suitability for research, assay development and large-scale assay manufacturing purposes.

SDS-PAGE

Figure 1 presents SDS-PAGE images of purified Recombinant hLH from CHO cells (left image) and Recombinant hLH from HEK293 cells (right image). Both forms of Recombinant hLH run at the expected molecular weights under reduced/heated, non-reduced/heated, and non-reduced/not heated conditions. (See Figure 1 caption for details.) In addition, no discernable contaminants are visible in either gel.

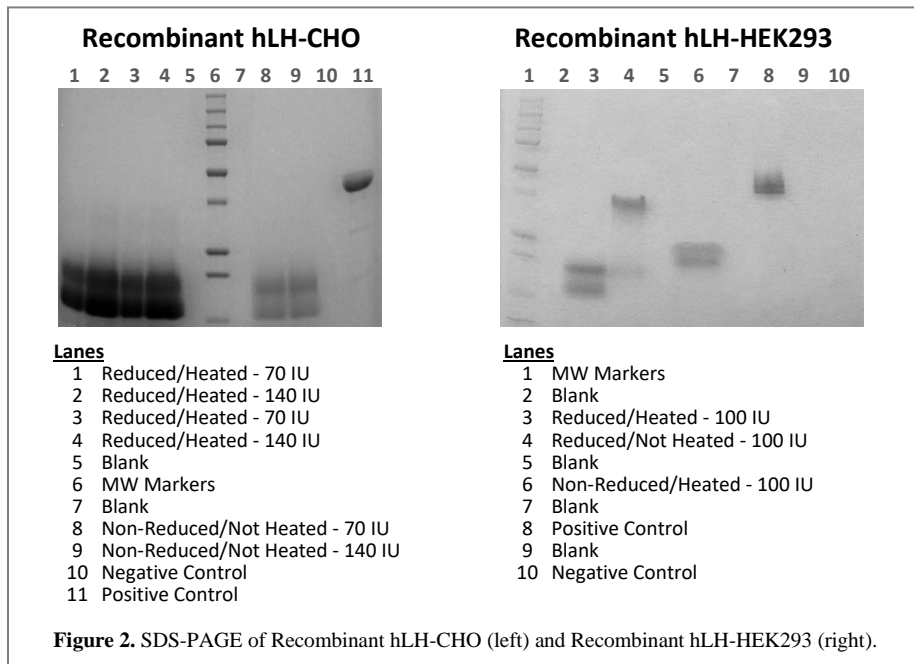
SDS-PAGE



SDS-PAGE
- Glycoprotein Stain -

SDS-PAGE
GLYCOPROTEIN STAIN

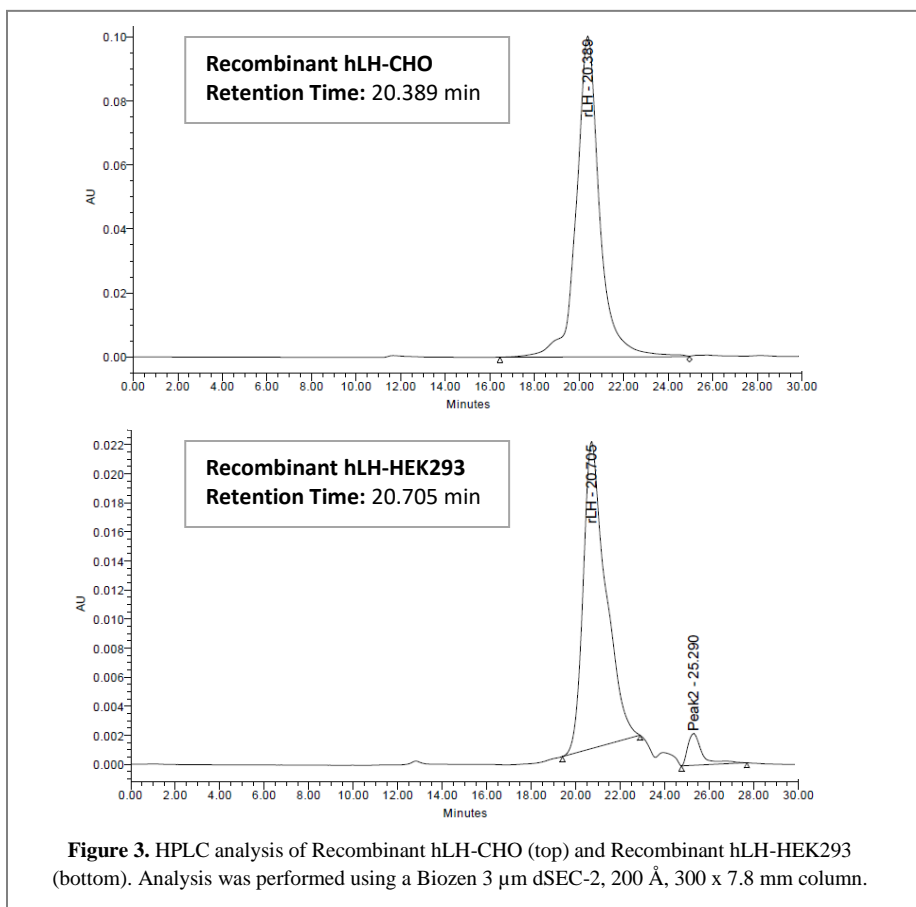
Native hLH is a glycoprotein produced and secreted by the anterior lobe of the pituitary gland. Scripps Laboratories offers two forms of Recombinant hLH from mammalian cell lines, CHO and HEK293, and both forms are also glycoproteins. Figure 2 presents SDS-PAGE gels for Recombinant hLH-CHO and Recombinant hLH-HEK293, stained for carbohydrate moieties. Separation of the alpha- and beta-subunits of both forms of Recombinant hLH can be seen and all subunits are confirmed to be glycosylated.



HPLC

The HPLC profiles of Recombinant hLH-CHO (top) and Recombinant hLH-HEK293 (bottom) are shown in Figure 3. Both profiles display prominent single peaks with similar retention times of 20.389 min. (Recombinant hLH-CHO) and 20.705 min. (Recombinant hLH-HEK293). The absence of any minor peaks confirms what is corroborated by SDS-PAGE, that both recombinant proteins are highly purified with no discernable contaminants.

HPLC





The data presented here for Recombinant hLH-CHO and Recombinant hLH-HEK293 indicate they are excellent alternatives to native hLH. Produced in mammalian cell culture systems, both recombinants are highly-purified, glycosylated proteins. Bulk quantities are available for large-scale manufacturing with excellent lot-to-lot consistency. Use the links at right to learn more.

Ordering Information

<u>Product Description</u>	<u>Cat. No.</u>	<u>Part No.</u>	
Recombinant Human Luteinizing Hormone - CHO	L0817	90672	View L0817-90672
Recombinant Human Luteinizing Hormone - HEK293	L0817	90635	View L0817-90635

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