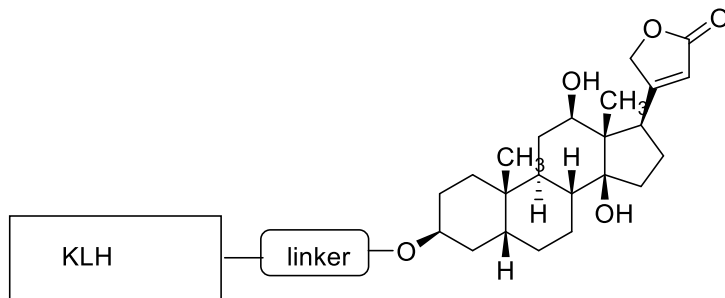


Certificate of Analysis

Description of the Material:

- (a) Chemical Name: KLH-Digoxigenin Conjugate
- (b) Chemical Structure: Digoxigenin is labeled at the surface amine of KLH via a flexible linker



- (c) Molecular Weight: ~400 KDa
- (d) Appearance: white to off-white preservative-free lyophilized powder
- (e) Amount: each tube contains 1 mg of KLH-Digoxigenin
- (f) Reconstitution: dissolve in 330 μ L of deionized water to obtain 3.31 mg/mL in 1xPBS buffer containing sugar-based stabilizer

Material Code and Batch Number:

- (a) Material Code: CM52108-1MG or CM52108-5MG
- (b) Lot Number: 1322-025.S11.091219

Purity and Loading Results:

- (a) HPLC analysis: $\geq 99\%$ of conjugates, free of any unreacted Digoxigenin
- (b) Digoxigenin over KLH ratio: 30~40
- (c) UV absorbance ratio of 220 nm vs 280 nm: 12.73 after labeling (11.5 KLH only)
- (d) SEC HPLC retention time decreased (increased MW): N/A (elute at void volume)
- (e) Reversed phase C4 HPLC retention time increase (increased hydrophobicity): 0.516 min

Intended Use: For research and development use only.

Hazard Information: See SDS.

Shelf life, Storage/Stability: The conjugate is fairly stable as solid at ambient temperature. Recommended long-term storage is at -20°C or preferably in a -80°C freezer. After reconstitution, the solution may be able to stay at $2-8^{\circ}\text{C}$ for a few weeks or -20°C for a few months.

Expiration date: 1 year after receiving if stored at -20°C or below.

Data Appendix: Size exclusion HPLC and MALDI-TOF MS Data.

Figure 1. Overlay size exclusion HPLC spectrum of KLH (before labeling, blue trace) and KLH-Digoxigenin in PBS buffer (after labeling, red trace). KLH and its conjugate elutes at void volume.

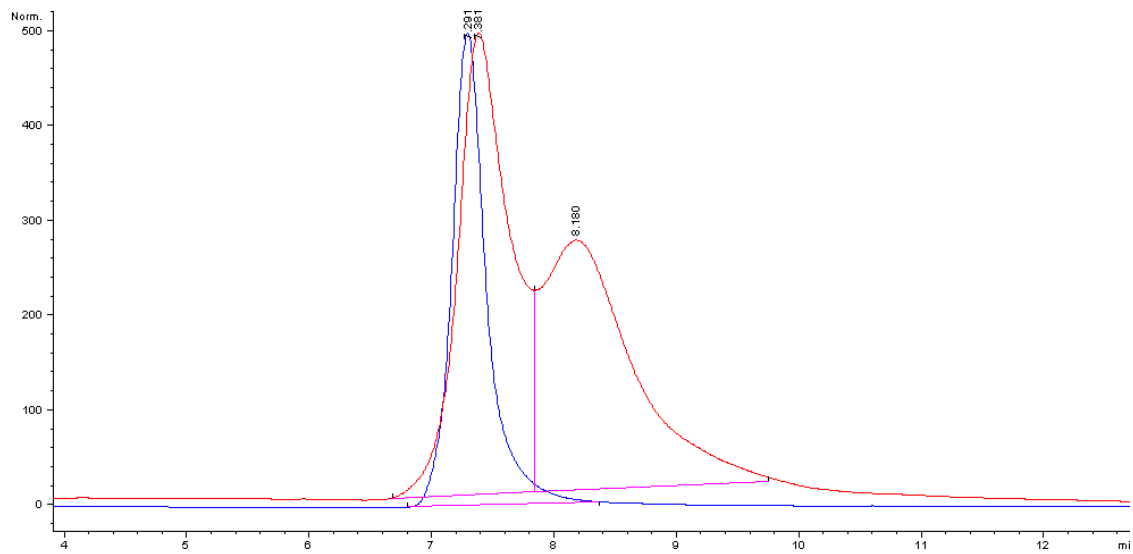


Figure 2. Overlay reversed phase C4 HPLC spectrum of KLH (before labeling, blue trace) and KLH-Digoxigenin in PBS buffer (after labeling, red trace). Delt Rt: 0.516 min

