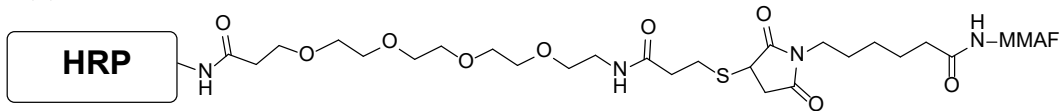


Certificate of Analysis

Description of the Material:

- (a) Chemical Name: HRP-MMAF (1:1) Conjugate
- (b) Chemical Structure:



- (c) Molecular Weight: 44.7 KDa
- (d) Appearance: Brownish lyophilized powder in a 1.5 mL centrifuge tube
- (e) Amount: Each tube contains 0.5 mg of HRP-MMAF
- (f) Reconstitution: dissolve in 225 μ L of deionized water to achieve 2.229 mg/mL in 1xPBS buffer containing sugar-based stabilizer (no preservative)

SKU Code and Batch Number:

- (a) SKU Code: CM53216-0.5MG or CM53216-2MG
- (b) Lot Number: S512.S13.0122D

Purity, Activity, MS, and Loading:

- (a) HPLC analysis: $\geq 99\%$ of one MMAF labeled HRP (some aggregated forms), free of any unreacted HRP and MMAF (Chromatography purified).
- (b) MALDI-TOF MS Data for Intact Conjugate: 44724 Da
- (c) HRP Activity: ≥ 208 units/mg protein [Unit Definition. One unit is amount of enzyme that will form 1.0 mg purpurogallin from pyrogallol in 20 sec. at pH 6.0 at 20 °C]

Intended Use: For research and development use only.

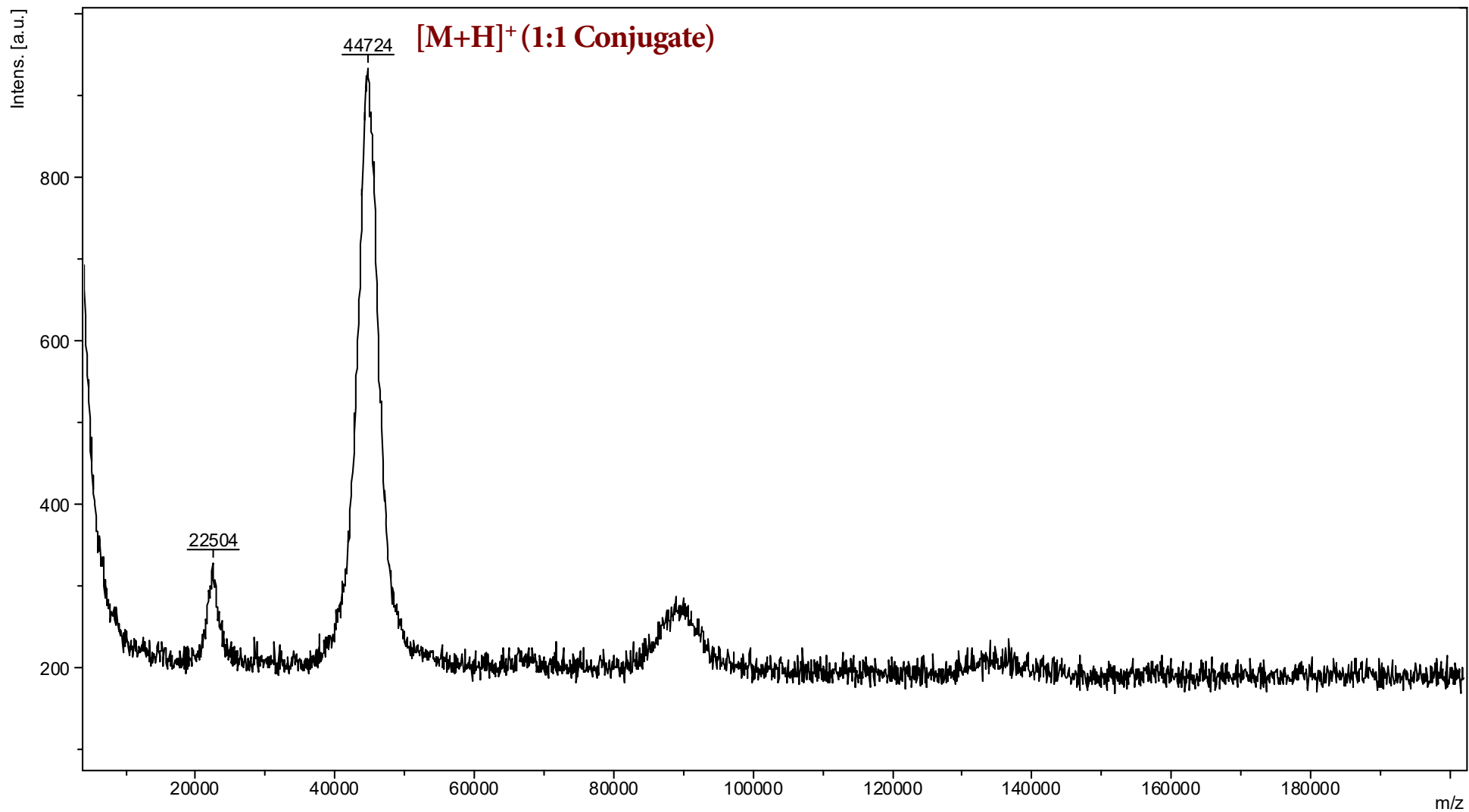
Hazard Information: See SDS.


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 stock solution could be used up to 1 week if stored at $2-8^{\circ}\text{C}$, and for about 2-4 weeks if stored frozen at -20°C or below; without significantly losing HRP activity.

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

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

MALDI-TOF MS of HRP-MMAF (Lot#: S512.S13.0122D)



 CellMosaic, Inc. www.cellmosaic.com
10 A Roessler Road, Woburn, MA 01801, USA.

HPLC ANALYSIS DATA

Data Acquired By:QC
Sample Location:Vial 41
Sample Name:HRP-MMAF

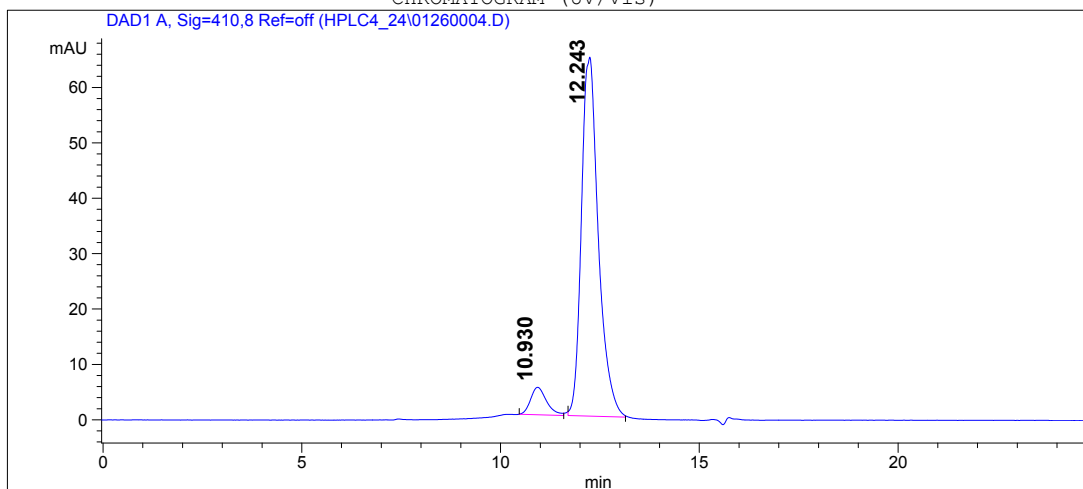
Actual injection Volume:10.0 uL
Sequence Name:
Method:C:\HPCHEM\1\METHODS\C2-3001.M
Pressure: 39.8 bar
Flow: 0.750 uL/min
Temp (C): 25.0 C

-- SAMPLE INFORMATION --

Prod# CM53216
Lyo vial (Lot:S512.S13.0122D)
Recons. with 75ul DI H2O

->

CHROMATOGRAM (UV/Vis)



Signal Description Wavelength(nm), Bw	Retention Time [Min.]	Area [mAU.s]	Area %
DAD1 A, Sig=410,8 Ref=off	10.930	138.6	6.7
	12.243	1924.5	93.3

*****END OF REPORT*****