

Gradient buffer

CX-1 pH gradient buffers

Quick start guide

Overview

Thermo Scientific™ CX-1 pH gradient buffers are designed to generate a linear pH gradient with cation exchange columns for the characterization of mAb charge variants and other proteins. This guide will provide step-by-step instructions to prepare the pH gradient buffer mobile phase. For more detailed information regarding the use of pH gradient buffers, please consult the pH gradient buffer [product manual](#).

Main features

- Generates robust and reproducible pH gradients
- Ready to use with existing LC columns and systems without the need for time consuming mobile phase adjustments

Directions for use

- Dilute the 10× pH gradient buffer A or B 10-fold using either weight/weight or volume/volume with Type 1 reagent grade deionized water with a specific resistance of 18.2 Megohm-cm or greater filtered through a 0.2 µm filter
- Set the UV wavelength to 280 nm or above
- To generate a pH gradient from 5.6 to 10.2 set the gradient program from 100% A to 100% B over 30 minutes for Thermo Scientific™ MAbPac™ SCX-10, 10 µm, 4 × 250 mm column. For other columns, adjust the gradient time based on the column dimension



Notes

- Store the 10× pH gradient buffer A and gradient buffer B between 2-8 °C
- If the buffers are frozen, equilibrate to room temperature and mix well prior to diluting
- Do not dilute buffer A or buffer B more than 10-fold. Over dilution will reduce the overall buffering capacity
- To achieve optimal chromatographic separation, it is recommended to use Thermo Scientific™ ProPac™ 3R SCX, Thermo Scientific™ ProPac™ Elite WCX, Thermo Scientific™ ProPac™ WCX-10, and MAbPac SCX-10 columns

Certificate of analysis

The CX-1 pH gradient buffers were developed, formulated, and tested for use with the ProPac WCX-10 and MAbPac SCX-10 columns. The preparation and analyses for pH, conductivity and UV absorption of this lot of pH gradient buffers was performed with extreme care by Thermo Fisher Scientific Consumables Manufacturing Department in Sunnyvale, California to ensure this lot meets the specifications stated in the Table 1.

Thermo Fisher Scientific offers a 3-month warranty on this product. Tests have been completed to ensure that concentration remains within the certified values throughout the product shelf life.

Table 1

Parameter	CX-1 pH gradient buffer A	CX-1 pH gradient buffer B
pH	5.6 ± 0.2	10.2 ± 0.2
Conductivity (mS/cm)	26.0 ± 2.0	40.0 ± 2.0
UV absorption at 280 nm	≤0.01	≤0.01

Ordering information

Description	Size	pH	Cat. no.
pH gradient buffer A	125 mL	pH 5.6	083273
	250 mL		085346
	500 mL		302779
	1000 mL		303274
pH gradient buffer B	125 mL	pH 10.2	083275
	250 mL		085348
	500 mL		302780
	1000 mL		303275

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