Comparison of Two IMAC Formats for the Enrichment of Phosphopeptides for Analysis by Mass Spectrometry

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Overview

Introduction

Results

Plate Enrichment - HPLC

Resin Enrichment - HPLC

Plate Binding Selectivity

Plate Elution Selectivity - MALDI-MS

Resin Elution Selectivity - MALDI-MS

Resin Binding Selectivity

Conclusions

Methods

Materials

Plate Enrichment - HPLC

Plate Binding Selectivity

Plate Elution Selectivity - MALDI-MS

Resin Elution Selectivity - MALDI-MS

Resin Binding Selectivity

Results

Binding Capacity Study

Table 1. Binding Capacity Study

Conclusions

- Binding capacity of each format was evaluated by capture and elution of phosphopeptides at different concentrations of ligands
- Both formats were able to enrich phosphopeptides from the sample mixture, with slight differences in binding capacity
- Plate format had higher binding capacity than resin format in certain conditions
- Plate format was found to be more suitable for large-scale enrichment due to its higher capacity and ease of use
- Resin format, on the other hand, was found to be more suitable for smaller-scale enrichment due to its lower cost and easier handling