

Store at
-20°C

PTMScan® Control Peptides Multi-Pathway

#49120

1 vial



Support: +1-978-867-2388 (U.S.)
www.cellsignal.com/support

Orders: 877-616-2355 (U.S.)
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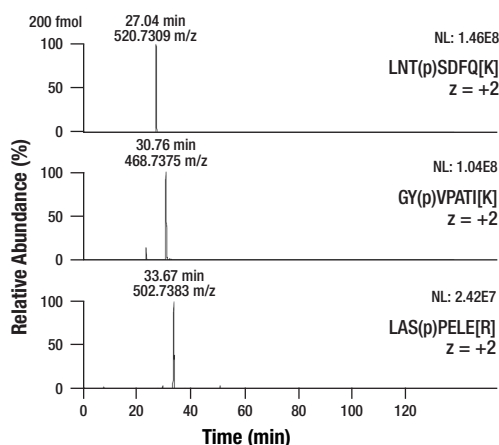
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Number	Peptide	Precursor mass (M+H ⁺)	Recommended m/z to monitor
1	LNT(p)SDFQ[K]	1040.45397 m/z	520.73062 m/z (z = +2)
2	GY(p)VPATI[K]	936.468161 m/z	468.73772 m/z (z = +2)
3	LAS(p)PELE[R]	1004.46877 m/z	502.73802 m/z (z = +2)

Peptides included in the PTMScan® Control Peptides Multi-Pathway mix. All peptides are stable-isotope labeled, designated by bracketed R or K, and contain a phosphate group designated by parentheses.

Description: The PTMScan® Control Peptides Multi-Pathway enable quality control of immunoaffinity enrichment performance using PTMScan® workflows. These synthetic peptides contain a specific post-translational modification (PTM) that can be enriched by the associated PTMScan® immunoaffinity purification (IAP) beads, as well as a stable heavy isotope that can be distinguished from endogenous peptides by the mass spectrometer.

Background: The PTMScan® Multi-Pathway Enrichment Kit #75676 introduces Cell Signaling Technology's PTMScan® Direct Multi-Pathway proteomics service to the end user in a convenient and easy-to-use kit format. Based on the patented PTMScan® method, the kit includes an array of site-specific antibodies conjugated to protein A beads for peptide immunoaffinity purification. The kit is designed for the screening, discovery, and quantitation of thousands of proteins and phosphorylation sites on hundreds of critical signaling proteins spanning multiple signaling pathways. These include cell cycle and checkpoint control, PI3K/Akt signaling, MAPK and JNK cascades, T cell and B cell receptor signaling, as well as some housekeeping targets. The kit can also be used as the enrichment reagent for customized targeted assays by including heavy isotope-labeled synthetic peptides to a subset of validated targets.



Extracted ion chromatograms of PTMScan® Control Peptides Multi-Pathway added at supplied concentration (1X at 200 fmol) to mouse liver peptides prior to immunoaffinity enrichment using PTMScan® Multi-Pathway Enrichment Kit #75676. Desalted peptides were analyzed on Q Exactive™ mass spectrometer and resolved using a 120 min reversed phase gradient from 7.5% to 32% acetonitrile on a C18 column. The peak corresponding to the specific Control Peptide is marked with retention time and observed precursor mass, with peak height reported as the normalized level (NL) for each row per panel.

Storage: This product is stable for 12 months when stored at -20°C. Aliquot to avoid multiple freeze/thaw cycles.

Please visit www.cellsignal.com for a complete listing of recommended complementary products.

Directions for Use:

Use with Cell Signaling Technology's PTMScan® kit protocol from the Immunoaffinity Purification (IAP) step. Because the optimal amount of PTMScan® Control Peptides Multi-Pathway for each user's experiments will depend on unique factors, such as mass spectrometer sensitivity, users may dilute these control peptides as needed.

1. Aliquot PTMScan® Control Peptides Multi-Pathway for storage as single-use units at -20°C or proceed to immediate usage.
2. Resuspend sample peptides in the appropriate buffer and volume, e.g., 1.4 mL of PTMScan® IAP Buffer (1X).
3. Clear sample peptides by centrifugation.
4. Transfer clarified sample peptides to tubes containing IAP beads.
5. Add 10 µL of PTMScan® Control Peptides Multi-Pathway to IAP beads and sample peptides and mix well.
6. Continue with PTMScan® workflows at the 2-hour incubation step.
7. Detect PTMScan® Control Peptides Multi-Pathway in the LCMS data file.

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