

Store at  
-20°C**PTMScan® LysC Protease**

#84748

1 vial  
(1 mg)**Cell Signaling**  
TECHNOLOGY®**Support:** +1-978-867-2388 (U.S.)  
cellsignal.com/support**Orders:** 877-616-2355 (U.S.)  
orders@cellsignal.com**For Research Use Only. Not for Use in Diagnostic Procedures.****Description:** Lysyl endopeptidase (LysC) hydrolyzes amide and peptide ester bonds on the carboxyl side of lysine residues and hydrolyzes S-aminoethylcysteine residues.**Background:** LysC cleaves proteins on the carboxyl side of lysine residues. This makes it a useful tool in protein sequencing and proteomic applications. The enzyme was originally purified from the Gram-negative soil bacteria *Achromobacter lyticus* (1). It has been found to work optimally between 30-37°C and pH ranges from 9.0-9.5 but will undergo degradation at 50°C and higher. Activity is maintained in 4 M urea or 0.1% SDS solutions for up to 6 hr at 30°C. Inhibitors of the enzyme include PMSF, DFP, and TLCK.**Source/Purification:** PTMScan® LysC Protease was produced recombinantly in *E. coli*, purified and provided lyophilized in 1-5% Tris and 20-40% mannitol. Purity was assessed by SDS-PAGE. One amidase unit (AU) of the enzyme produces 1 µmol of p-nitroaniline per min at pH 9.5 at 30°C.**Specificity/Sensitivity:** The activity of LysC is ≥ 1 AU/mg.**Directions for Use:** For PTMScan® protocols, we recommend making a 5 mg/mL stock solution by resuspending 1 mg in 0.2 mL of 20 mM HEPES pH 8.0. Aliquot resuspended enzyme for single use. Store aliquots at -80°C. See the PTMScan® protocol for further details.**Storage:** Lyophilized LysC has a shelf life of 12 months when stored at -20°C. Once reconstituted, the enzyme can be aliquoted and stored at -80°C for 6 months.**Please visit [cellsignal.com](https://cellsignal.com) for validation data and a complete listing of recommended companion products.****Background Reference:**

- (1) Soejima, M. and Masaki, T. (1984) *Tanpakushitsu Kakusan Koso* 29, 1532-7.

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**Applications:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry CHIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry FC-FP—Flow cytometry-Fixed/Permeabilized FC-L—Flow cytometry-Live E-P—ELISA-Peptide  
**Species Cross-Reactivity:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse  
**All**—all species expected. Species enclosed in parentheses are predicted to react based on 100% homology.