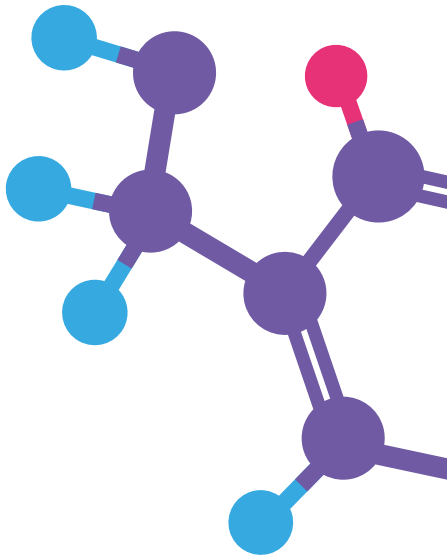
DISCOVERY®
PEPTIDES

Substrate Peptides from Cambridge Research Biochemicals



Post-translational modifying (PTM) enzymes are biological catalysts that modify the proteome to coordinate their complex signalling networks and physiological states.

> **Post-translational modifying enzymes are responsible for the modifications of protein substrates. There are two distinct mechanisms of enzymatic action: the hydrolysis of peptide bonds and the covalent modification of amino acid side chains.**

Substrate Peptides

The catalytic activity of enzymes involves the binding of their substrates to the active site via non-covalent interactions to form an enzyme-substrate complex. An enzyme can accelerate the rate of reaction using multiple mechanisms to convert the substrate to products, without altering the chemical equilibrium between reactants and products. The products are then released from the enzyme.

PTM enzymes can reversibly or irreversibly modify protein substrates through biochemical reactions to diversify their functions. Enzyme selectivity for substrates is highly specific due to the electrostatic states of the enzyme's active site and substrates being complementary.

These optimal and specific substrate peptide sequences are derived from natural substrates or phosphorylation sites. Synthetic peptide substrates are powerful tools for a variety of applications such as enzyme characterisation, inhibition studies and structural studies. Their use in enzyme assays allows for quantitative measurements of enzyme activity and kinetics, identifying mechanisms of catalysis and establishing a substrate library of enzyme specificity.

Ivry et al (2018) Global substrate specificity profiling of post-translational modifying enzymes. *Protein Sci*, 27(3) 584

Abltide
crb1001137
KKGEAIYAAPFA-amide
0.5mg £85 | 1mg £110

Akt/SKG Substrate Peptide
crb1000597
RPRAATF-acid
0.5mg £85 | 1mg £110

AKTide-2T
crb1000598
ARKRERTYSFGHHA-acid
0.5mg £85 | 1mg £110

AMARA Peptide
crb1001400
AMARAASAAALARRR-acid
0.5mg £85 | 1mg £110

Axltide Substrate Peptide
crb1000487
KKSRGDYMTMQIG-acid
0.5mg £85 | 1mg £110

CDK7/9tide Substrate
crb1000935
YSPTSPSYSPTSPSYSPTSP
SKKKK-acid
0.5mg £85 | 1mg £110

CHKtide
crb1000972
KKKVSRSGLYRSPSMPENL
NRPR-acid
0.5mg £85 | 25mg £750

Phosphorylated CHKtide
crb1000975
KKKV-[pS]-RSGLYRSPSMPEN
LNRPR-acid
0.5mg £110 | 25mg £950

CSK Substrate
crb1000320
KKKKEEIYFFF-amide
0.5mg £85 | 1mg £110

DAPKtide Substrate Peptide
crb1000599
KKRPQRRYSNVF-acid
0.5mg £85 | 1mg £110

EGFR/kinKDR Substrate Peptide
crb1001421
EEPLYWSFPAKKK-amide
0.5mg £85 | 1mg £110

Glasstide
crb1001141
RKRSRAE-acid
0.5mg £85 | 1mg £110

HER-2 Substrate Peptide
crb1000259
GGMEDIYFEFMGGKKK-amide
0.5mg £85 | 25mg £750

HSP70/DnaK Substrate Peptide
crb1000589
NRLLLTG-acid
0.5mg £85 | 1mg £110

IRS-1 Substrate
crb1000959
CKKSRGDYMTMQIG-acid
0.5mg £85 | 25mg £750

Jak2 Substrate
crb1000270
GGEEEEYFELVKK-acid
0.5mg £85 | 1mg £110

LRRKtide
crb1000328
RLGRDKYKTLRQIRQ-acid
0.5mg £85 | 25mg £750

LRRKtide amide
crb1000258
RLGRDKYKTLRQIRQ-amide
0.5mg £85 | 25mg £750

Phosphorylated LRRKtide
crb1000466
RLGRDKYK-[pT]-LRQIRQ-amide
0.5mg £110 | 25mg £950

MALT1 Substrate
crb1000738
Ac-LVSR-acid
0.5mg £85 | 1mg £110

N-Methylated ERAP1 Substrate
crb1000327
L-[(N-Me-Val]-AFKARAF-acid
0.5mg £85 | 1mg £110

PTP Substrate
crb1000745
END-[pY]-INASL-acid
0.5mg £110 | 1mg £140

PTP1B Substrate
crb1000746
DADE-[pY]-LIPQQG-acid
0.5mg £110 | 1mg £140

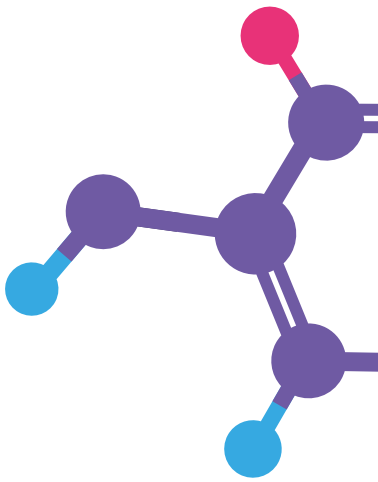
PYK2 Peptide Substrate
crb1000915
AGAGSIESDIYAEIPDETC-amide
0.5mg £85 | 1mg £110

Renin Substrate
crb1001117
DRVYIHPFHLVIHN-acid
0.5mg £85 | 1mg £110

Sakamototide
crb1000978
ALNRTSSDSALHRRR-acid
0.5mg £85 | 25mg £750

SAMS Peptide
crb1000209
HMRSAMSGLHLVKRR-acid
0.5mg £85 | 1mg £110

SRC Substrate Peptide
crb1000603
KVEKIGEGTYGVVYK-acid
0.5mg £85 | 1mg £110



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