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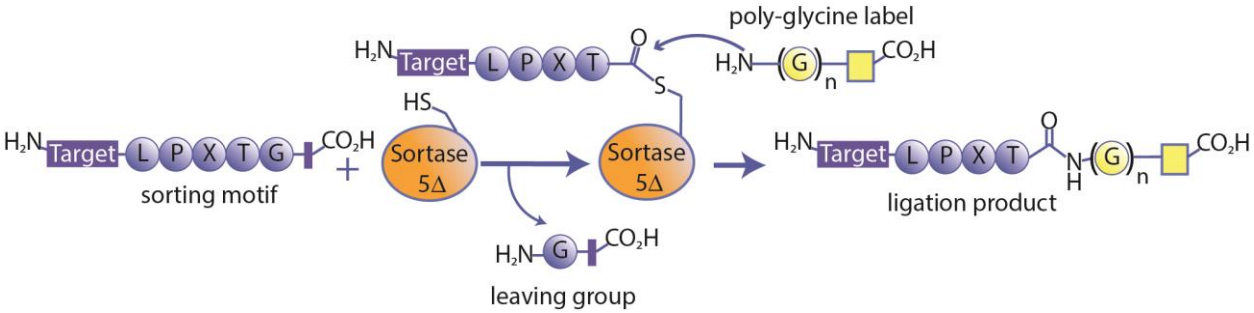
Data Sheet
Sortase Sampling Kit
Catalog #79709

DESCRIPTION:

Sortases catalyze a transpeptidation reaction, where the enzyme cleaves the amide bond between the threonine and glycine of the sortase recognition sequence (LPXTG for S. *aureus* Sortase A), generating a thioacyl intermediate. Subsequently, this intermediate is resolved by the N-terminus of an oligoglycine nucleophile, creating a new peptide bond that links the substrate to the incoming nucleophile. Sortase variants are available that may exhibit enhanced activity with the substrate of interest. This kit provides wildtype Sortase and four different mutants to evaluate which sortase is best for the chosen application.



COMPONENTS:

Catalog #	Component	Amount	Storage
71086	Sortase wildtype enzyme	10 µg	-80°C Avoid freeze/thaw cycles
79393	Sortase 5Δ enzyme	10 µg	
71047	Sortase 6Δ enzyme	10 µg	
71048	Sortase 7Δ enzyme	10 µg	
72518	Sortase 8Δ enzyme	10 µg	
79394	Reaction Buffer	100 µl	4°C

MATERIALS OR INSTRUMENTS REQUIRED BUT NOT SUPPLIED:

Target protein (1 mg/mL, 10 µg per reaction)
Poly-glycine label (5 mM, 1 µl per reaction, <10 kDa)
37°C incubator
Microcentrifuge
Electrophoresis sample buffer (for SDS-PAGE) or 1 M EDTA solution (for mass spectroscopy)

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APPLICATIONS: Great for evaluating substrate specificity or optimizing the sortase ligation reaction.

STABILITY: At least 6 months from date of receipt, when stored as directed.

REFERENCE: Popp M. *Methods Mol Biol*. 2015; **1266:**185-98.

LABELING PROTOCOL:

1) Thaw a single vial of Sortase on ice.

2) While on ice, set up the labeling reaction as follows (add all reagents to the vial containing Sortase):

Reagent	Volume to add
Target Protein (1 mg/mL)	10 µl
Reaction Buffer	2 µl
Poly-Glycine Label (5 mM)	1 µl
Sortase	10 µl
Total	**23 µl**

3) Mix reaction well by gently pipetting up and down.

4) Incubate reaction at 37°C for 30 minutes and mix every 5-10 minutes (or place on shaker if available).

5) Stop reaction by adding SDS-PAGE sample buffer, or 2.3 µl of 1 M EDTA (10 mM final).

6) Evaluate labeling by SDS-PAGE or mass spectroscopy.

For questions or concerns, please contact BPS Bioscience, Inc. at info@bpsbioscience.com

BPS is a leader in the custom expression of recombinant proteins. Contact us about custom projects for the expression of target proteins containing the sortase recognition sequence.

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RELATED PRODUCTS

Product	Cat. #	Size
Sortase wildtype enzyme	71086	10 µg
Sortase 5Δ enzyme	79393	10 µg
Sortase 6Δ enzyme	71047	10 µg
Sortase 7Δ enzyme	71048	10 µg
Sortase 8Δ enzyme	72518	10 µg
SiMPLe Protein Labeling Kit (Sortase Mediated Protein Ligation)	79392	3 units

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