



Product Information Sheet

Product Name:	Sortase A, Recombinant, <i>S. aureus</i>
Catalog Number:	72229
Size:	10 µg
Concentration:	50 µg/mL
Activity (Unit/µg):	Provided on the label
Unit definition:	One unit of protease hydrolyzes 1 pmole of 5-FAM/QXL™ 520 FRET peptide substrate per minute at pH 7.5 at 25°C, as measured by using the substrate included in SensoLyte® 520 Sortase Assay Kit (Cat# 72228).
Storage:	Store at -80°C. Avoid multiple thaw-freeze cycles.

Instruction:

Sortases are a family of membrane-anchored transpeptidases expressed by Gram-positive bacteria.¹ Sortase A catalyzes the cleavage of C-terminal recognition motif (LPXTG) of multiple structurally unrelated proteins followed by formation of an amide bond with the peptidoglycan layer of the bacteria.² Since Sortases are widely distributed among a variety of bacterial pathogens and required for virulence, Sortases represent a promising therapeutic target for the development of novel anti-infective agents.³ In addition, Sortase A can be used as a biotechnology tool for a variety of protein modifications and immobilization by sortase-mediated protein ligation.⁴

Sortase A from *Staphylococcus aureus* was expressed in *E. coli* expression system with a N-terminal His tag. It is comprised of 26-206 amino acids and its MW is 21.7-kDa. The activity of Sortase A can be measured in a FRET-based enzymatic assay (AnaSpec Cat# 72228). 100 ng of enzyme is sufficient for the assay. Sortase A is stored in 40 mM Tris-HCl, pH 8.0, 110 mM NaCl, and 2.2 mM KCl, 8 mM imidazole, 0.04% Tween 20, and 20 % glycerol. The purity is >87% as estimated on SDS PAGE.

References

1. Spirig T, et al. *Mol Microbiol* 82, 1044 (2011).
2. Marraffini LA, et al. *Microbiol Mol Biol Rev* 70, 192 (2006).
3. Maresso AW, et al. *Pharmacol Rev* 60, 128 (2008).
4. Proft T. *Biotechnol Lett* 32, 1 (2010).