

Datasheet for MB-114-0001**Protease *S. aureus*****Overview**

Description:	Protease <i>S. aureus</i> - MB-114-0001
Item No.:	MB-114-0001
Size:	1 mg
Origin:	<i>Staphylococcus aureus</i>

Product Details

Background:	Protease <i>S. aureus</i> V8 (Endoproteinase-Glu-C) specifically cleaves peptide bonds on the COOH-terminal side of either aspartic or glutamic acids. In the presence of ammonium, the enzyme specificity is limited to glutamic sites. It has a molecular weight of 27,000 daltons and optimum pH's of 4.0 and 7.8 with hemoglobin as the substrate. Protease <i>S. aureus</i> V8 is inhibited by diisopropylfluorophosphate and monovalent anions such as F ⁻ , Cl ⁻ , CH ₃ COO ⁻ and NO ₃ . Enzyme activity is determined by the casein digestion assay. Protease <i>S. aureus</i> is ideal for investigators involved in enzyme and infectious disease research.
Synonyms:	Glutamyl endopeptidase, Endoproteinase Glu-C, Staphylococcal serine proteinase, V8 protease, V8 proteinase
Species of Origin:	<i>Staphylococcus aureus</i>
Reagent Type:	Enzyme
Specific Activity:	1,980 units/mg by dry weight

Target Details

Gene Name:	sspA
Purity/Specificity:	Protease <i>S. aureus</i> V8 (Endoproteinase-Glu-C) specifically cleaves peptide bonds on the COOH-terminal side of either aspartic or glutamic acids. In the presence of ammonium, the enzyme specificity is limited to glutamic sites. It has a molecular weight of 27,000 daltons and optimum pH's of 4.0 and 7.8 with hemoglobin as the substrate. Protease <i>S. aureus</i> V8 is inhibited by diisopropylfluorophosphate and monovalent anions such as F ⁻ , Cl ⁻ , CH ₃ COO ⁻ and NO ₃ . Enzyme activity is determined by the casein digestion assay.
Relevant Links:	• UniProtKB - P0C1U8 • NCBI - 1280

Application Details

Application Note:	Protease S. aureus has shown that one unit causes a change of 0.001 A280 nm per minute at 37° C at pH 7.8 using casein as a substrate. Specific conditions for reactivity should be optimized by end user.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
Other:	1,040 units/mg dry weight. 1 unit causes change 0.001 A280 nm per minute at 37°C pH 7.8 using casein as a substrate.

Formulation

Physical State:	Lyophilized
Concentration:	1040 units/mg by dry weight
Buffer:	None
Preservative:	None
Stabilizer:	None
Reconstitution Volume:	1.0 mL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.