

Mundticin KS precursor Rabbit pAb

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Catalog # AP54331

Product Information

Application	IHC-P, IHC-F, IF, E
Host	Rabbit
Clonality	Polyclonal
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from Mundticin KS precursor
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Mundticin KS, a bacteriocin produced by <i>Enterococcus mundtii</i> NFRI 7393 isolated from grass silage in Thailand, is active against closely related lactic acid bacteria and the food-borne pathogen <i>Listeria monocytogenes</i>. In this study, biochemical and genetic characterization of mundticin KS was done. Mundticin KS was purified to homogeneity by ammonium sulfate precipitation, sequential ion-exchange chromatography, and solid-phase extraction. The gene cluster (mun locus) for mundticin KS production was cloned, and DNA sequencing revealed that the mun locus consists of three genes, designated munA, munB, and munC. The munA gene encodes a 58-amino-acid mundticin KS precursor, munB encodes a protein of 674 amino acids involved in translocation and processing of the bacteriocin, and munC encodes a mundticin KS immunity protein of 98 amino acids. Amino acid and nucleotide sequencing revealed the complete, unambiguous primary structure of mundticin KS; mundticin KS comprises a 43-amino-acid peptide with an amino acid sequence similar to that of mundticin ATO6 produced by <i>E. mundtii</i> ATO6. Mundticin KS and mundticin ATO6 are distinguished by the inversion of the last two amino acids at their respective C termini. These two mundticins were expressed in <i>Escherichia coli</i> as recombinant peptides and found to be different in activity against certain <i>Lactobacillus</i> strains, such as <i>Lactobacillus plantarum</i> and <i>Lactobacillus curvatus</i>. Mundticin KS was successfully expressed by transformation with the recombinant plasmid containing the mun locus in heterogeneous hosts such as <i>E. faecium</i>, <i>L. curvatus</i>, and <i>Lactococcus lactis</i>. Based on our results, the mun locus is located on a 50-kb plasmid, pML1, of <i>E. mundtii</i> NFRI 7393.

Additional Information

Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:500 0-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When

reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.