

32-7112: Recombinant E. coli Ecotin (C-6His)(Discontinued)

Gene : eco
Gene ID : 946700
Uniprot ID : P23827

Description

Source: E.coli.
MW :19.2kD.

Recombinant E.coli Ecotin is produced by our E.coli expression system and the target gene encoding Met1-Arg162 is expressed with a 6His tag at the C-terminus. Ecotins are dimeric periplasmic proteins from Escherichia coli and related Gram-negative bacteria that have been shown to be potent and general inhibitors of many trypsin-fold serine proteases of widely varying substrate specificity, which belong to MEROPS peptidase family S1. Ecotin protein inhibits chymotrypsin, trypsin, elastases, factor X, kallikrein as well as a variety of other proteases and has been characterized as an extremely potent anticoagulant and reversible tight-binding inhibitor of human factor Xa (FXa). The power of inhibition is not linked to specific protease specificity. Immobilized Ecotin has been used to affinity-purify recombinant trypsinogen, indicating that it may also be used to purify additional serine protease zymogens. Compared to other serine protease inhibitors such as members of the serpin family, the reactive site of ecotin is Met104 (P1). Phylogenetic analysis suggested that Ecotin has an exogenous target, possibly neutrophil elastase. Ecotin from E. coli, Yersinia pestis, and Pseudomonas aeruginosa, all species that encounter the mammalian immune system, inhibit neutrophil elastase strongly while ecotin from the plant pathogen Pantoea citrea inhibits neutrophil elastase 1000-fold less potently. Ecotins all potently inhibit pancreatic digestive peptidases trypsin and chymotrypsin, while showing more variable inhibition of the blood peptidases Factor Xa, thrombin, and urokinase-type plasminogen activator. Ecotin is synthesized as a 162 amino acid precursor with a 20 amino acid signal peptide necessary to direct it to the periplasmic space.

Product Info

Amount : 10 µg / 50 µg
Content : Lyophilized from a 0.2 µm filtered solution of 20mM TrisHCl, 300mM NaCl, pH 8.5.
Storage condition : Lyophilized protein should be stored at -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at -20°C for 3 months.
Amino Acid : MKTILPAVLFAAFATTSAAWAESVQPLEKIAPYPQAEKGMKRQVIQLTPQEDESTLKVELLIGQTLEVDCNLHRLGGKLENKTLEGWGYDYYVFDKVSSPVSTMMACPDGKKEKKFVTAYLGDAGMLRYNSKLPVVYTPDNVDVKYRVWKAAEEKIDNAVVRLEHHHHHH

Application Note

Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100 µg/ml. Dissolve the lyophilized protein in ddH₂O. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

Endotoxin : Less than 0.1 ng/µg (1 IEU/µg) as determined by LAL test.