

Arginine Deiminase

Mycoplasma Hominis, Recombinant(ADI)

Expressed in *E. coli*

Cat. No. CRP0841

Lot. No. (See product label)

PRODUCT INFORMATION

Description: Arginine deiminase is a ~46 kDa protein that was isolated from the mycoplasma-contaminated cell culture. ADI can degrade arginine to citrulline and NHB3B. rADI has acted as a potent inhibitor of the growth of some arginine-dependent tumor *in vitro* and *in vivo*. rADI is expressed in *E. coli* and purified *via* Q-sepharose column.

Synonyms: L-arginine iminohydrolase; arginine dihydrolase; citrulline iminase; d L-arginine deiminase; EC 3.5.3.6 .

M. W.: 46,260 Da

Recombinant: Expressed in *E. coli*

Purity: >95% as determined by SDS-PAGE.

Specific Activity: 19U/mg .The activity is assayed on anti-tumor cell *in vitro*.

PI: 5.52 by Isoelectricfocusing

Endotoxin: less than 10EU/mg as determined by LAL method

Component: r-ADI, PBS buffer, pH 7.4

Concentration: 2 mg /ml by BCA

Storage Buffer: Liquid in PBS Buffer.

Storage: At 4°C for 6 months and -80°C for 2 years

FOR RESEARCH USE ONLY

In enzymology, an arginine deiminase (EC 3.5.3.6) is an enzyme that catalyzes the chemical reaction



Thus, the two substrates of this enzyme are L-arginine and H₂O, whereas its two products are L-citrulline and NH₃.

This enzyme belongs to the family of hydrolases, those acting on carbon-nitrogen bonds other than peptide bonds, specifically in linear amidines. The systematic name of this enzyme class is L-arginine iminohydrolase. Other names in common use include arginine dihydrolase, citrulline iminase, and L-arginine deiminase. This enzyme participates in arginine and proline metabolism.

REFERENCES

1. Harasawa R, et al. Nucleotide sequence of the arginine deiminase gene of Mycoplasma hominis. *Microbiol Immunol.* 1992; 36: 661-665.
2. Feun L, Savaraj N. Pegylated arginine deiminase: a novel anticancer enzyme agent. *Expert Opin Investig Drugs.* 2006; 15: 815-822.