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Crystal Structure of Imidazolonepropionase from *Agrobacterium tumefaciens* at 1.87 Å Resolution. Rajiv Tyagi, Desigan Kumaran, Subramanyam Swaminathan, Biology Dept., Brookhaven National Laboratory, Upton, NY 11973.

Imidazolonepropionase (imidazolone-5-propionate hydrolase; EC 3.5.2.7) a 45.6 kDa protein is member of amidohydrolase superfamily and catalyses the conversion of imidazolone-5-propanoate to N-forminio-L-glutamate in the histidine degradation pathway. We have determined the first three dimensional structure of this enzyme from *Agrobacterium tumefaciens* at 1.87 Å resolution using Mercury-MAD. The asymmetric unit contains two monomers, where each monomer is composed of a small N-terminal domain and a large C-terminal domain having classic TIM barrel fold. The active site is contained within each monomer and its organization displays the landmark feature of amidohydrolase superfamily showing a metal ligand (iron), four histidines and one aspartic acid.

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