WHAT IS CLAIMED IS:

1. A variant of 5′-inosinic acid dehydrogenase having i) substitution of an amino acid at position 377 with threonine, ii) substitution of an amino acid at position 499 with isoleucine, or iii) substitution of the amino acid at position 377 with threonine and substitution of the amino acid at position 499 with isoleucine in an amino acid sequence of SEQ ID NO: 2.

2. A polynucleotide encoding the variant of 5′-inosinic acid dehydrogenase of claim 1.

3. A vector comprising the polynucleotide of claim 2.

4. A microorganism of the genus *Corynebacterium* producing 5′-inosinic acid, the microorganism comprising the variant of 5′-inosinic acid dehydrogenase of claim 1 , the polynucleotide of claim 2, or the vector of claim 3.

5. The microorganism of the genus *Corynebacterium* producing 5′-inosinic acid of claim 4, wherein the microorganism of the genus *Corynebacterium* is *Corynebacterium stationis*.

6. A method of preparing 5′-inosinic acid, comprising:

culturing the microorganism of the genus *Corynebacterium* of claim 4 in a medium; and

recovering 5′-inosinic acid from the microorganism or the medium.

7. The method of preparing 5′-inosinic acid of claim 6, wherein the microorganism of the genus *Corynebacterium* is *Corynebacterium stationis*.