

## Nucleoside biosynthesis

Sections/problems listed with an asterisk (\*) do not discuss the exact reaction indicated, but do discuss a closely related reaction.

- PRPP synthetase (EC 2.7.6.1) [Section 10.2C](#); [P10.3](#)

### Uridine

- Carbamoyl phosphate synthase (EC 6.3.5.5) [Section 12.2\\*](#)
- Aspartate carbamoyltransferase (EC 2.1.3.2) [Section 12.2\\*](#)
- Dihydroorotase (EC 2.5.2.3) [C12.4](#)
- Dihydroorotate dehydrogenase (EC 1.3.3.1) [P16.5](#)
- Orotate phosphoribosyltransferase (EC 2.4.2.10) [Section 10.2C](#)
- Orotidine monophosphate decarboxylase (EC 4.1.1.23) [C14.1](#)

### Thymine

- Thymidylate synthase (EC 2.1.1.45) [C14.2](#)

### Cytosine

- CTP synthase (EC 6.3.4.2) [P10.5a](#), [P12.13](#)

### Inosine

- Glutamine phosphoribosyl amidotransferase ([EC 2.4.2.14](#)) [Section 11.5](#)
- Glycinamide ribonucleotide synthetase([EC 6.3.4.13](#)) [Section 12.2C](#)
- GAR transformylase (EC 2.1.2.2) [P12.14](#)
- FGAM synthetase ([EC 6.3.5.3](#)) [P12.16](#)
- Aminoimidazole ribonucleotide synthetase ([EC 6.3.3.1](#)) [P10.5b](#), [P12.10](#)
- Aminoimidazole ribonucleotide carboxylase ([EC 4.2.1.1](#)) [Section 13.5\\*](#)
- SAICAR synthetase ([EC 6.3.2.6](#)) [Section 12.2C\\*](#); [P12.17](#), [C14.4](#)
- Adenylosuccinate lyase ([EC 4.3.2.2](#)) [Section 14.1\\*](#); [P14.9](#)
- AICAR transformylase ([EC 2.1.2.3](#)) [P12.15](#)
- IMP cyclohydrolase ([EC 3.5.4.10](#)) [P11.3](#)

### Adenosine

- Adenylosuccinate synthetase ([EC 6.3.4.4](#)) [P12.17](#)
- Adenylosuccinate lyase ([EC 4.3.2.2](#)) [Section 14.1\\*](#); [P14.9](#)

### Guanosine

- IMP dehydrogenase (EC 1.1.1.205) [Section 14.2B](#), [Section 16.6B](#); [P16.6](#)
- GMP synthetase (EC 6.3.5.2) [P10.5a](#), [P12.13](#)

### Deoxynucleotides

- Ribonucleotide reductase (EC 1.17.4.1) [Section 17.3B](#)

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