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5-Fluoroorotic Acid

Cat. No. 10836-013 **Size: 1 g**
Store at -20°C.

Description: 5-Fluoroorotic acid (5FOA) inhibits cell growth in numerous organisms that utilize orotic acid as a source of the pyrimidine ring (1-8). 5FOA is converted to fluoroorotidine monophosphate and subsequently decarboxylated to form 5-fluorouridine monophosphate. Growth inhibition is presumably due to the formation of fluorodeoxyuridine, which is a potent inhibitor of thymidylate synthetase. Mutations in either of the two enzymes mediating these steps can be selected with 5FOA (9). In *Saccharomyces cerevisae*, both *ura*3$^-$ and *ura*5$^-$ mutants can grow on plates containing 5FOA (1) whereas growth of cells expressing wild-type URA3 or URA5 is inhibited. In addition, events that decrease expression levels of URA3 can also be identified using 5FOA (10).

This material is recommended for use with the ProQuest™ Two-Hybrid System with Gateway™ Technology (Cat. No. 10835-031).

Caution: This product is considered hazardous. Please consult the Material Safety Data Sheet for health and safety information.

Quality Control: This product has been qualified in an inhibition assay using yeast control strains from the ProQuest™ Two-Hybrid System.

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References:

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