



FIGURE 2.29. The regulation of β -galactosidase could be studied separately from its catalytic function by the use of chemical analogs. This enzyme cleaves at a particular position (marked in red). *para*- and *ortho*-nitrophenyl galactoside are cleaved much more efficiently than lactose, but do not induce production of the enzyme. Conversely, isopropyl galactoside is a much more powerful inducer of enzyme production, but it cannot be broken up by the enzyme.

2.29, adapted from Judson H.F., *The Eighth Day of Creation; Makers of the Revolution in Biology*, expanded edition, pp. 372, 392, CSHLP, © 1996 by Horace Freeland Judson