

# *Escherichia coli* and *Salmonella*

CELLULAR AND MOLECULAR BIOLOGY

---

SECOND EDITION

VOLUME I

*Editor in Chief*

FREDERICK C. NEIDHARDT  
University of Michigan Medical School, Ann Arbor, Michigan

*Editors*

ROY CURTISS III  
Washington University, St. Louis, Missouri

JOHN L. INGRAHAM  
University of California, Davis

EDMUND C. C. LIN  
Harvard Medical School, Boston, Massachusetts

K. BROOKS LOW  
Radiobiology Laboratories, Yale University School of Medicine, New Haven, Connecticut

BORIS MAGASANIK  
Massachusetts Institute of Technology, Cambridge, Massachusetts

WILLIAM S. REZNIKOFF  
University of Wisconsin-Madison, Madison, Wisconsin

MONICA RILEY  
Marine Biological Laboratory, Woods Hole, Massachusetts

MOSELIO SCHAECHTER  
San Diego State University, San Diego, California

H. EDWIN UMBARGER  
Purdue University, West Lafayette, Indiana

ASM PRESS WASHINGTON, D.C.

**TABLE 1** Midpoint potentials ( $E_{m,7}$ ) of electron donor and acceptor couples

Couple	$E_{m,7}$ (mV)	Reference
$\frac{1}{2}\text{O}_2/\text{H}_2^-$	+818	371
$\text{NO}_3^-/\text{NO}_2^-$	+433	371
$\text{NO}_3^-/\text{NH}_4^+$	+360	153
$\frac{1}{2}\text{S}_4\text{O}_6^{2-}/\text{S}_2\text{O}_3^{2-}$	+170 to +24	20
$(\text{CH}_3)_2\text{SO}/(\text{CH}_3)_2\text{S}$	+160	427
$(\text{CH}_3)_3\text{N}/(\text{CH}_3)_3\text{NH}^+$	+130	21
Q/ubiquinol	+113	371
DMK/demethylmenaquinol	+36	385
Fumarate/succinate	+30	371
MK/menaquinol	-74	371
DHAP/G3P <sup>a</sup>	-190	371
FMN/FMNH <sub>2</sub>	-190	371
Pyruvate/lactate	-190	371
FAD/FADH <sub>2</sub>	-220	371
NAD <sup>+</sup> /NADH	-320	371
$\text{S}_2\text{O}_3^{2-}/\text{S}^{2-} + \text{HSO}_3^-$	-402 to -420	20
$\text{H}^+/\frac{1}{2}\text{H}_2$	-414	371
$\text{CO}_2/\text{HCO}_2^-$	-432	371

<sup>a</sup> DHAP/G3P, dihydroxyacetone phosphate/glycerol 3-phosphate.