

## Composition of Promega Restriction Enzyme Reaction Buffers (1X)

### 1X Restriction Enzyme Buffer Composition.

Buffer	pH (at 37°C)	Tris-HCl (mM)	MgCl <sub>2</sub> (mM)	NaCl (mM)	KCl (mM)	DTT (mM)
A	7.5	6	6	6	—	1
B	7.5	6	6	50	—	1
C	7.9	10	10	50	—	1
D	7.9	6	6	150	—	1
E	7.5	6	6	100	—	1
F	8.5	10	10	100	—	1
G	8.2	50	5	—	—	—
H	7.5	90	10	50	—	—
J	7.5	10	7	—	50	1
K	7.4	10	10	—	150	1
L	9.0	10	3	100	—	—

**MULTI-CORE™ Buffer (1X)** = 25mM Tris-acetate (pH 7.5 at 37°C), 100mM potassium acetate, 10mM magnesium acetate, 1mM DTT.

#### Notes:

- For each 10°C rise in temperature between 0°C and 25°C, the pH of Tris buffers decreases 0.31 pH units.
- For each 10°C rise in temperature between 25°C and 37°C, the pH of Tris buffers decreases 0.25 pH units.
- All restriction enzymes are supplied with 10mg/ml Acetylated BSA. Although BSA is not absolutely required for activity, it has been shown to enhance activity of many restriction enzymes. We recommend adding BSA to all restriction digests at a final concentration of 0.1mg/ml.