TAPS - pK=8.55

HEPPSO - pK= 7.9

HEPES - pK = 7.55

AMPSO - pK=9.0

Glycine - pK=9.9

Tris - pK=8.3

Bis-Tris Propane

1,3-Bis[tris(hydroxymethyl) methyl-amino]propane

pKs at 6.5 and 9.0

MES

2-(N-morpholino) ethanesulfonic acid

pK at 6.15

TECHNICAL INFORMATION

Protein Conversion Data

1 kb of DNA = 333 amino acids of coding capacity
= 37,000 Daltons

270 bp DNA = 10,000 Daltons

1.35 kb DNA = 50,000 Daltons

2.70 kb DNA = 100,000 Daltons

Average molecular weight of an amino acid
= 120 Daltons

Mass of Protein to Moles of Protein

MW (daltons)	1 µg	1 nmol
10,000	100 pmol; 6×10^{13} molecules	10 µg
50,000	20 pmol; 1.2×10^{13} molecules	50 µg
100,000	10 pmol; 6.0×10^{12} molecules	100 µg
150,000	6.7 pmol; 4.0×10^{12} molecules	150 µg

Concentration of Protein to Absorbance of Protein

Protein	A_{280} for 1 mg/ml
IgG	1.35
IgM	1.20
IgA	1.30
Protein A	0.17
Avidin	1.50
Streptavidin	3.40
Bovine Serum Albumin (67 KD)	0.70

Codon Dictionary

	Terminal base	Middle base U	Middle base C	Middle base A	Middle base G
	U	Phe	Ser	Tyr	Cys
		Phe	Ser	Tyr	Cys
		Leu	Ser	STOP	STOP
		Leu	Ser	STOP	Trp
	C	Leu	Pro	His	Arg
		Leu	Pro	His	Arg
		Leu	Pro	Gln	Arg
		Leu	Pro	Gln	Arg
	A	Ile	Thr	Asn	Ser
		Ile	Thr	Asn	Ser
		Ile	Thr	Lys	Arg
		Met	Thr	Lys	Arg
	G	Val	Ala	Asp	Gly
		Val	Ala	Asp	Gly
		Val	Ala	Glu	Gly
		Val[a]	Ala	Glu	Gly

a. Codes for Met if in the initiator position.