

# GuideSheet

# Biological Abbreviations and Formulas

**C**learly label all containers with content name. Write out the complete chemical and/or biological name or use abbreviations (useful for small containers). If abbreviations are used, display this guide sheet prominently at several locations in each lab. Extend the list with lab-specific abbreviations, as necessary.

Full Name/Formula	Abbreviation
2-(N-morpholino)ethanesulfonic acid	MES
3-(N-morpholino)propanesulfonic acid	MOPS
3-[(3-Cholamidopropyl)dimethylammonio]-1-propanesulfonate	CHAPS
4-(2-hydroxyethyl)-1-piperazineethanesulfonic acid	HEPES
Bovine serum albumin	BSA
Dulbecco's Modified Eagle Medium	DMEM
Dulbecco's phosphate-buffered saline	DPBS
Ethylene glycol-bis(β-aminoethyl ether)-N,N,N',N'-tetraacetic acid	EGTA
Ethylenediaminetetraacetic acid	EDTA
Fetal bovine serum	FBS
Hanks balanced salt solution	HBSS
HEPES-buffered saline solution	HeBS
piperazine-N,N'-bis(2-ethanesulfonic acid)	PIPES
Phosphate-buffered saline	PBS
Phosphate-buffered saline x Tween 20	PBST
Polyethylene glycol sorbitan monolaurate	TWEEN
Sodium chloride/TRIS/EDTA	STE
Sodium dodecyl sulfate	SDS
Sodium chloride/sodium citrate	SSC
Tris (hydroxymethyl) aminomethane	Tris
Tris (hydroxymethyl) aminomethane hydrochloride	Tri-HCl
Tris buffered saline x polysorbate 20	TBST
Tris buffered saline	TBS
Tris/acetate/EDTA	TAE

Full Name/Formula	Abbreviation
Tris/borate/EDTA	TBE
Tris/EDTA	TE
Tris/EDTA/sodium chloride	TEN
Tris/glycine/SDS	TGS
Tris/phosphate/EDTA	TPE
Tris/sodium chloride/Tween 20	TNT
Tween 20/TBS	TTBS
Glycerol, Tris-HCl, EDTA, Bromphenol Blue, Xylene Cyanol FF	6 x DNA Loading dye (DNA Agarose gels) (RT)
Protein A/G	A/G (4°)
Alkaline Phosphatase	AP (4°)
g,4-Dihydroxy-2-(6-hydroxy-1-heptenyl)-4 cyclopentanecrotonic acid l-lactone	BFA – Brefeldin A Solution (4°)
2-Bis(2-hydroxyethyl)amino-2-(hydroxymethyl)-1,3-propanediol	Bis-Tris (RT)
Caesium chloride (used for plasmid prep)	CsCl <sub>2</sub> (RT)
Disodium 3-(4-methoxy Spiro {1,2-dioxetane-3,2'-(5'-chloro)tricyclo [3.3.1.1.3,7]decan}-4-yl)phenyl phosphate	CSPD (4°)
Ficoll, PVP, BSA	Denhardt's solution (-20°)
Digoxigenin	DIG (4°)
Deoxyribonucleotide triphosphates	dNTPs (including dATP, dTTP, dCTP, dGTP, dUTP) (-20°)
Sodium Deoxycholate solution	DOC (4°)
Polysucrose	Ficoll/ Ficoll-Paque (4-25°)
Horseradish peroxidase	HRP (4°)



Full Name/Formula	Abbreviation
Isopropyl thiogalactoside	IPTG (4°)
Lipopolysaccharides (usually E. coli derived)	LPS (4°)
Luciferase	Luc (-20°)
nonyl phenoxypolyethoxyethanol	NP40
p-nitrophenyl phosphate	PNPP
Polyvinylpyrrolidone	PVP
Saline, Sodium Phosphate, EDTA	SSPE
3,3',5,5' – tetramethylbenzidine	TMB
N-(2-Hydroxy-1,1-bis(hydroxymethyl) ethyl)glycine	Tricine
Polyethylene glycol p-(1,1,3,3-tetramethylbutyl)-phenyl ether	Triton-X
Tetrodotoxin	TRX
Uracil-DNA N-glycosylase	UNG/UDG
5-bromo-4-chloro-3-indolyl-b-D-galactopyranoside	X-Gal

**ANTIBIOTICS**

Ampicillin	Amp or Ap
Carbenicillin	Carb or Cb
Chloramphenicol	Cam or Cm
Geneticin	G418
Gentamycin	Gen or Gm
Kanamycin	Kan or Km
Neomycin	Neo or Nm
Penicillin	Pen or Pc
Rifampicin	Rif, Ra or Rmp
Streptomycin	Strep, Str or Sm
Tetracycline	Tet or Tc

Full Name/Formula	Abbreviation
<b>MEDIA</b>	
Brain Heart Infusion (broth or agar)	BHI
Cell culture media named after inventor	Ham's-F12
Luria-Bertani (broth or agar)	LB
Roswell Park Memorial Institute Medium	RPMI
Super Optimal Broth	SOB
Super Optimal Broth with catabolite repression	SOC
Trypticase Soy Broth	TSB

**Full Name****Formula****BUFFERS**

Na <sub>2</sub> CO <sub>2</sub> , NaHCO <sub>3</sub> , water	Coating buffer (for ELISA)
PBS, BSA or FBS, EDTA, sometimes with sodium azide, recipes may vary by lab	FACS Buffer – (Flow Cytometry buffer)
Non-denaturing: Tris HCl, NaCl, NP40, EDTA. Detergent free: EDTA, Sodium azide. Recipes may vary by lab	IP Buffer / Co-IP Buffer
NP40, NaCl, Sodium deoxycholate, SDS, Tris, water	RIPA Buffer

**WESTERN BLOT BUFFERS**

Laemmli Loading Buffer/Dye	Bromphenol Blue, Tris-HCl, Glycerol, β-Mercaptoethanol
Running Buffer	Tris Base, Glycine SDS
Transfer Buffer	Tris Base, Glycine, water, Methanol



