

## 10 Abbreviations

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°C	grad celsius
µg	microgram
µl	microliter
3D	three dimensional
5'-TOP	5'-terminal oligopyrimidine
A <sub>260</sub> / A <sub>280</sub>	absorbance at 260nm/280nm
aa	amino acid
Ala (A)	alanine
Amp	ampicillin
AP	alkaline phosphatase
APS	ammonium persulfate
Arg (R)	arginine
Asp (N)	asparagine
ATP	adenosine 5-triphosphate
bp	base pair
BSA	bovine serum albumin
Ca <sup>2+</sup>	calcium
CBB	Comassie Brilliant Blue G-250
CC	coiled coil
cDNA	complementary DNA
Cys (C)	cysteine
DABCO	1,4-diazobicyclo-2,2,2-octan
DAPI	4,6-diamino-2-phenylindole
dATP	deoxyadenosine 5-triphosphate
dCTP	deoxycytidine 5-triphosphate
DEPC	diethylpirocarbonate
dGTP	deoxyguanosine 5-triphosphate
dHPLC	Denaturing High Performance Liquid Chromatography
DMEM	Dulbecco's modified eagle medium
DMSO	dimethyl sulfoxide
DNA	deoxyribonucleic acid
dNTP	2'-Deoxynucleotide-5' - triphosphate
DOC	deoxycholate
DTT	dithiothreitol
dTTP	deoxythymidine triphosphate
<i>E.coli</i>	<i>Escherichia coli</i>
EDTA	ethylene diamine tetraacetic acid
EFNB1	ephrin-B1 gene
GFP	green fluorescent protein
EMT	Epithelial Mesenchymal Transition
Eph receptor	ephrin receptor
ESI-MS	electrospray ionisation mass spectrometry
EtBr	ethidium bromide
EtOH	ethanol

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FITC	fluorescein isothiocyanate
FMRP	Fragile Mental Retardation Protein
FNIII	Fibronectin type III
FXS	Fragile X Syndrome
<i>g</i>	acceleration of gravity
g	gram
HEPES	4-(2-hydroxyethyl)-1-piperazineethanesulfonic acid
Gln (Q)	glutamine
Glu (E)	glutamic acid
Gly (G)	glycine
GTP	guanosine triphosphate
h	hour
HCl	hydrogen chloride
His (H)	histidine
HRP	horse radish peroxidase
IgG	immunoglobulin G
IPTG	isopropylthio- $\beta$ -D-thiogalactopyranoside
kb	kilobase
KCl	potassium chloride
kDa	kilodalton
l	liter
Ile (I)	isoleucine
LB	Luria Bertani
Leu (L)	leucine
Lys (K)	lysine
M	molar
mA	milliampere
MAP	microtubule associated protein
MeOH	methanol
Met (M)	methionine
Mg	milligram
MgCl <sub>2</sub>	magnesium chloride
MOTC	microtubules organising centre
min	minute
ml	milliliter
mM	millimolar
mmol	millimol
MOPS	3-(N-morpholino) propane sulfonic acid
mRNA	messenger RNA
MS	mass spectrometry
MT	microtubule
NaCl	sodium chloride
NCC	Neural Crest Cell
ng	nanogram
OD	optical density
OMIM	Online Mendelian Inheritance In Man
ONPG	o-nitrophenyl- $\beta$ -D-galactopyranoside

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ORF	open reading frame
OS	Opitz BBB/G syndrome
PAGE	polyacrylamide electrophoresis
PBS	phosphate-buffered saline
PBST	phosphate-buffered saline with Tween 20
PCR	polymerase chain reaction
Pfu	<i>Pyrococcus furiosus</i>
pH	negative logarithm of hydrogen ions concentration
Phe (F)	phenylalanine
Pro (P)	proline
PP2A	Protein Phosphatase 2A
PP2Ac	Catalytic subunit of PP2A
PVDF	polyvinylidenfluorid
RBCC	Ring-Bbox-Coiled-coil
<i>RING</i>	Really Interesting Gene
RNA	ribonucleic acid
RNase	ribonuclease
RNP	ribonucleic protein
rpm	revolutions per minute
RT	room temperature
<i>S.cerevisae</i>	<i>Saccharomyces cerevisiae</i>
SDS	sodium dodecyl sulphate
sec	second
Ser (S)	serine
SSC	standard saline citrate
T <sup>a</sup>	annealing temperature
TAE	Tris-acetate EDTA
Taq	<i>Thermus aquaticus</i>
TBS	Tris-buffered saline
TE	Tris-EDTA
TEMED	N,N,N',N'-tetramethyl-ethylendiamine
Thr (T)	threonine
mTOR	mammalian Target of Rapamycin
TRIM	Tripartite Motif
Tris	tris (hydroxymethyl)-aminomethane
Trp (W)	tryptophan
Tyr (Y)	tyrosine
U	unit
UCSC	University of California, Santa Cruz
UTP	uridin-5-triphosphate
UTR	untranslated region
UV	ultraviolet
V	volt
v/v	volume/volume
Val (V)	valine
w/v	weight/volume
X-gal	5-bromo-4-chloro-3-indolyl—D-galactopyranoside
XNF7	Xenopus nuclear factor 7

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