

Abbreviations, Symbols, and Units

Abbreviations for Amino Acids

Individual amino acids of ligands or amino acid sequences of motifs and peptides are represented using the one-letter code. Individual amino acids of domains are usually indicated by the three-letter code.

One-letter Code	Three-letter Code	Amino Acid
A	Ala	alanine
C	Cys	cysteine
D	Asp	aspartate
E	Glu	glutamate
F	Phe	phenylalanine
G	Gly	glycine
H	His	histidine
I	Ile	isoleucine
K	Lys	lysine
L	Leu	leucine
M	Met	methionine
N	Asn	asparagine
P	Pro	proline
Q	Gln	glutamine
R	Arg	arginine
S	Ser	serine
T	Thr	threonine
V	Val	valine
W	Trp	tryptophan
Y	Tyr	tyrosine

Abbreviations and Symbols

3D	three-dimensional
+	positively charged amino acids (Arg or Lys)
Ω	aromatic amino acid ¹ (Phe, Trp or Tyr)
Ψ	aliphatic amino acid ¹ (Ile, Leu, Met or Val) or dihedral angle
γ	gyromagnetic ratio constant of a nucleus
Φ	hydrophobic amino acid ¹ (Ile, Leu, Met, Phe, Trp, Tyr or Val) or dihedral angle
ω_0	Larmor frequency in $\text{rad} \cdot \text{sec}^{-1}$
A_{600}	absorption at 600 nm

Ade	adenine
AKNA	AT-hook protein
APC	antigen presenting cell(s)
ATP	adenosine triphosphate
<i>At</i>	<i>Arabidopsis thaliana</i>
BBP	branch-point binding protein
BLU	Boehringer light units
C-terminal	carboxy-terminal
CAP-Gly domain	Cytoskeleton-associated protein, Gly-rich domain
CD2	cell differentiation antigen 2
<i>Ce</i>	<i>Caenorhabditis elegans</i>
cfu	colony forming units
CRF	corticotropin releasing factor
DAGAT	diglyceride acyltransferase
DMEM	Dulbecco's Modified Eagle's Medium
DNA	deoxyribonucleic acid
dNTP	2' deoxyribonucleotide triphosphate
<i>Dm</i>	<i>Drosophila melanogaster</i>
E3	ubiquitin-protein isopeptide ligase
<i>E. coli</i>	<i>Escherichia coli</i>
EAP1	eIF4E-associated protein 1
EDTA	ethylene-diamine-N,N,N',N'- tetraacetic acid
(E)GFP	(enhanced) green fluorescence protein
eIF	eukaryotic initiation factor
<i>et al.</i>	et alteri/et alii
EVH1	Ena/VASP homology 1
(E)YFP	(enhanced) yellow fluorescence protein
FBP	formin binding protein
Fig.	figure
g8p	gene 8 protein
GIGYF	Grb10 interacting GYF protein
GST	glutathione S-transferase
GYF	domain name derived from the one-letter code for the characteristic tripeptide glycine-tyrosine-phenylalanine within the fold
GYN4	GYF domain-containing protein binding to Not4 (Swiss-Prot entry name Q9FMM3)
GYN4-PR	GYN4-GYF comprising the C-terminal proline-rich motif
HA	hemagglutinin

H-bond	hydrogen bond
HIV	human immunodeficiency virus
Hrs	hepatocyte growth factor-regulated tyrosine kinase substrate
<i>Hs</i>	<i>Homo sapiens</i>
HSQC	heteronuclear single-quantum coherence
<i>I</i>	spin quantum number
Ig	immunoglobulin
IGFR	insulin-like growth factor receptor
IL	interleukin
ITAM	immunoreceptor tyrosine-based activation motif
K_D	dissociation constant
k_{off}	dissociation rate constant, off rate
LB	Luria-Bertani
LIN1	link to DNA replication, mRNA splicing, and alternative cohesion complex formation 1
MAGD1	melanoma-associated antigen D1
MHC	major histocompatibility complex
<i>Mm</i>	<i>Mus musculus</i>
mRNA	messenger RNA
miRNA	micro RNA
MSL5	MUD synthetic-lethal 5
MUD2	mutant synthetic-lethal with U1 snRNA 2
N-terminal	amino-terminal
NEB	New England Biolabs
NEDD4	neural precursor cell expressed developmentally down-regulated protein 4
NMR	nuclear magnetic resonance
NPWBP	Npw38-binding protein
<i>Os</i>	<i>Oryza sativa</i>
P4HBD	substrate binding domain of prolyl 4-hydroxylase
PAGE	polyacrylamide gel-electrophoresis
PCR	polymerase chain reaction
PDB	Protein Data Base
PDZ	domain name derived from the initials of the three proteins PSD95, DLG, and ZO-1, containing this fold
PERQ	P, E, R, and Q amino acid rich with GYF domain protein
PI31	proteasome inhibitor PI31 subunit
PMSF	phenylmethanesulfonyl-fluoride
po	prefix for a phosphorylated amino acid

PPII	polyproline type II
ppm	parts per million
PQBP-1	polyglutamine tract-binding protein 1
PR-SYH1	SYH1-GYF, comprising the N-terminal proline-rich motif
pre-mRNA	precursor mRNA
PRD	proline-rich sequence recognition / proline recognition domain(s)
PRP	pre-mRNA processing protein
PRS	proline-rich sequence(s)
PVDF	polyvinylidene difluoride
RMSD	root mean square deviation
RNA	ribonucleic acid
<i>Sc</i>	<i>Saccharomyces cerevisiae</i>
SCOP	Structural Classification of Proteins
SD	synthetic drop-out
SDS	sodium dodecyl sulfate
SF1	splicing factor 1
SGD	<i>Saccharomyces</i> Genome Database
SH	Src homology
SIV	simian immunodeficiency virus
Sm	Smith (auto-antigen typical for systemic lupus erythematosus)
SMY2	suppressor of myo2-66
snoRNA	small nucleolar RNA
snRNA	small nuclear RNA
snRNP	small nuclear ribonucleoprotein particle
SWAN	SH3/WW domain anchor protein in the nucleus
SYH1	SMY2 homolog 1
TAIR	The <i>Arabidopsis</i> Information Resource
TCR	T cell receptor
Tris	trihydroxymethylaminomethan
Tsg101	tumor susceptibility gene 101
U	units
U2AF	U2 auxiliary factor
UEV	ubiquitin E2 (ubiquitin carrier protein) variant
Ura	uracil
U snRNP	uridine-rich snRNP
v/v	volume/volume
w/v	weight/volume
WT	wild-type

WW	domain name derived from the one-letter code for the two conserved tryptophan residues within the fold
WWP2	WW domain-containing protein 2
yeast	<i>Saccharomyces cerevisiae</i>
YT	yeast, tryptone

Note:

The list above includes the most relevant abbreviations. Complete names of genes and gene products of genetic interaction partners of GYF domain comprising proteins are omitted and can be found in databases such as Genbank, SGD or Swiss-Prot.

Units

°	degree
Å	Ångström (10^{-10} m)
bp	base pair(s)
C	Celsius
Da	Dalton
g	gram(s) or acceleration of gravity ($\sim 9.81 \cdot \text{sec}^{-2}$)
h	hour(s)
K	Kelvin
l	liter
M	$\text{mol} \cdot \text{l}^{-1}$
m	meter(s)
min	minute(s)
rpm	revolutions per minute
S	Svedberg
sec	seconds

