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For the Arthur C. Guyton Educator of the Year Award

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Abbreviations

Listed below are abbreviations and their definitions. These may be used without definition in the APS Journals. See Information for Authors (www.the-aps.org/publications/journals/pub_quick.htm) for other abbreviations, symbols, and terminology.

ACCh: acetylcholine  
ACTH: adrenocorticotropic hormone  
ADP (CDP), GDP, IDP, UDP, XDP, TDP: adenosine 5'-diphosphate (and similarly for cytidine, guanosine, etc.)  
AACh: acetylcholine  
IgG, etc.: immunoglobulin G, etc.  
IGF-I, -II: insulin-like growth factor I and II  
IFN: interferon  
FCCP: carbonyl cyanide p-trifluoromethoxyphenylhydrazone  
FBS, FCS: fetal bovine/calf serum  
/HEPES: 2-(2-hydroxyethyl)piperazine-1-ethanesulfonic acid  
ECM: extracellular matrix  
ECG: electrocardiogram  
ETEA: tryethylaminoethyl  
EDTA: ethylenediaminetetraacetic acid  
EGG: electroencephalogram  
EGTA: ethylene glycol-bis(2-aminoethyl ether)-N,N',N'-tetraacetic acid  
EIA: enzyme-linked immunosorbent assay  
ERK: extracellular signal-regulated kinase  
EFA: extracellular matrix  
EGF: epidermal growth factor  
ER: endoplasmic reticulum  
CBE: concanavalin A  
ECM: extracellular matrix  
EGF: epidermal growth factor  
EPD: ethylene glycol-dimethacrylate  
EGTA: ethylene glycol-bis(2-aminoethyl ether)-N,N',N'-tetraacetic acid  
ELISA: enzyme-linked immunosorbent assay  
EMSA: electrophoretic mobility shift assay  
EKR: extracellular signal-regulated kinase  
ERK: extracellular signal-regulated kinase  
FADD: FADD, reduced flavin adenine dinucleotide  
BBS: fetal bovine/calf serum  
FCCP: carbonyl cyanide p-trifluoromethoxyphenylhydrazone  
FGR: fibroblast growth factor  
FTIC: fluorocein isothiocyanate  
FSH: follicle-stimulating hormone  
GABA: γ-aminobutyric acid (also, “GABAergic”)  
GAP: growth-associated protein  
GAPDH: glyceraldehyde-3-phosphate dehydrogenase  
GC-MS: gas chromatography-mass spectrometry  
GDPβS: guanosine 5'-O-(β-d-ribofuranosyl)  
GSH, GSSG: reduced and oxidized glutathione  
GTPyS: guanosine 5'-O-(3'-thiotriphosphate)  
GSK: glycogen synthetase kinase  
Hb: hemoglobin  
HBSS: Hank’s balanced salt solution  
HCT: hematocrit  
HDL: high-density lipoprotein  
HEPES: N-2-hydroxyethylpiperazine-N′-2-ethanesulfonic acid  
HETE: hydroxyeicosatetraenoic acid  
HPLC: high-performance liquid chromatography  
5-HT: 5-hydroxytryptamine (serotonin)  
IBMX: 3-isobutyl-1-methylxanthine  
ICAM: intercellular adhesion molecule  
IFN: interferon  
IGF-I, -II: insulin-like growth factor I and II  
IKK: IκB kinase  
IL-1: interleukin-1 (IL-2, etc.)  
IRMS: isotope ratio mass spectrometry  
JAK: Janus-activated kinase  
JNK: c-Jun NH2-terminal kinase  
JNKK: JNK kinase  
kB: kilobase(s)  
Km: equilibrium constant related to Michaelis-Menten kinetics (similarly, $K_a$, $K_p$, $K_eq$, $K_r$)  
LDL: low-density lipoprotein  
LH: luteinizing hormone  
LH-RH: luteinizing hormone-releasing hormone  
LPS: lipopolysaccharide  
Mab: monoclonal antibody  
MAPK: mitogen-activated protein kinase  
MAPKK: MAP kinase kinase (also known as MEK or MKK)  
MAPKAPK: MAP kinase activated protein kinase  
MEM: Eagle’s minimum essential medium  
MES: 2-(N-morpholino)ethanesulfonic acid  
MKP: MAP kinase phosphatase  
MOPS: 3-(N-morpholino)propanesulfonic acid  
MPO: myeloperoxidase  
MTr: relative molecular mass (unitless)  
MRT: magnetic resonance imaging  
MSH: melanocyte-stimulating hormone  
NAD: nicotinamide adenine dinucleotide  
NADH: reduced nicotinamide adenine dinucleotide  
NADPH: reduced nicotinamide adenine dinucleotide phosphate  
NF-κB: nuclear factor-κB  
NGF: nerve growth factor  
NMR: nuclear magnetic resonance  
NSAID: nonsteroidal anti-inflammatory drug  
nm: nanomole(s)  
PAGE: polyacrylamide gel electrophoresis  
PAH: p-aminophenol  
PAA: polyacrylamide  
PBS: phosphate-buffered saline  
PCR: polymerase chain reaction  
PDGF: platelet-derived growth factor  
PET: positron emission tomography  
PGE: prostaglandin (PGE1, PGE2, PGF2)  
Pi: inorganic phosphate  
PPIPES: piperazine-N,N'-bis(2-ethanesulfonic acid)  
PKA: cAMP-dependent protein kinase  
PKB, PKC: protein kinase B and C  
PLC: phospholipase C (similarly, PLA)  
PMA: phorbol 12-myristate 13-acetate  
PMSF: phenylmethylsulfonyl fluoride  
PNC: partial O2 pressure or O2 tension (similarly, PCO2)  
POPOP: 1,4-bis[2-(5-phenyloxazolyl)]benzene  
PPO: 2,5-diphenyloxazole  
psi: pounds per square inch  
PTK: protein tyrosine kinase  
RIA: radioimmunoassay  
RNA: ribonucleic acid (also, mRNA, nRNA, rRNA, tRNA)  
RT: reverse transcriptase  
SAPK: stress-activated protein kinase  
SAPKK: stress-activated protein kinase kinase  
SOD: superoxide dismutase  
SOD1: superoxide dismutase  
SSC: standard sodium citrate  
SST: stress-activated protein kinase  
TAME: N-p-tosyl-L-arginine methyl ester  
TCA: trichloroacetic acid  
TEAE: triethylaminoethyl  
TGF: transforming growth factor  
THP: tumor necrosis factor  
TPA: 12-0-tetradecanoylphorbol 13-acetate  
TPCK: N-tosyl-L-phenylalanine chloromethyl ketone  
TRH: thyrotropin releasing hormone  
Tris: tris(hydroxymethyl)aminomethane  
TSH: thyroid-stimulating hormone  
TXS: tetrandrine  
UV: ultraviolet  
VCAM: vascular cell adhesion molecule  
VEGF: vascular endothelial growth factor  
VIP: vasoactive intestinal peptide  
VLDL: very low-density lipoprotein  
$V_{max}$: maximum velocity or maximum rate of change or transition