Abbreviations:

AC: Adenylate cyclase

AF-6: Acute lymphoblastic leukemia 1 fusion

partner from chromosome 6

AKAP: A-kinase anchoring protein

ATF1: Activating transcription factor 1

ATP: Adenosine trisphosphate

cAMP: Cyclic adenosine 3',5'monophosphate

CAT: Catalytic domain of Epac

CBP: CREB binding protein

CDC25: Cell division cycle 25 CFP: Cyan fluorescence protein

CICR: Ca²⁺-induced Ca²⁺ release

CNG channels: Cyclic nucleotide-gated cation

channels

cNBD: cNMP binding domain

CREB: cAMP responsive element-binding

protein

CREM: cAMP response element modulator

DAG: Diacylglycerol

DEP: Disheveled, Egl-10, Plekstrin

E6TP1: High-risk human papilloma viruses E6

oncoproteins targeted protein 1

EBP50: ERM binding phosphoprotein 50

EGF: Epidermal growth factor

EM: Electron microscope

Epac: Exchange protein directly activated by

cAMP

ERM: Ezrin, Radixin and Moesin

FERM: Four-point-1 ERM

ERK(5): Extracellular signal regulated kinase (5)

EzB: Ezrin binding

FRET: Fluorescence resonance energy transfer

GAPDH: Glyceraldehyde phosphate

dehydrogenase

GAPs: GTPase activating proteins

GEF: Guanine nucleotide exchange factor

GFP: Green fluorescence protein

Gi: Inhibitory G protein

007: 8-pCPT-2'OMe-cAMP

GLP-1: Glucagon-like peptide-1

Gs: Stimulatory G protein

GST: Glutathion S-transferase

HA: Haemagglutinin

HGF: Hepatocyte growth factor

ICAM-1: Intercellular adhesion molecule 1

IP3-R: Inositol triphosphate receptor

LFA-1:Leukocyte function- associated

molecule-1

mAbs: Monoclonal antibodies

MAGI-1: MAGUK with inverted domain

structure-1

mAKAP: Muscle-specific A-kinase anchoring

protein

mantGDP:2'.3'-bis(O)-N-methy-

lantharanoloyl guanosine diphosphate

MAPK: Mitogen activated protein kinase

NHE3: Sodium-proton exchanger 3

NLS: Nuclear localization signal

PBC: Phosphate binding cassette

PDEs: phosphodiesterases

PDZ: PSD-95/DlgA/ZO-1

PKA: Protein kinase A

PKB: Protein kinase B

PLCζ: Phospholipase Cζ

pAb: Polyclonal antibody

R9AP: RGS9 anchoring protein

RA: Ras association

RanBP2: RAN binding protein 2

RBD: Ras binding domain

RD: Regulatory domain of Epac

REM: Ras exchange motif

RGS9: Regulator of G-protein signaling 9

Rim2: Rab3-interaction molecule 2

RYR: Ryanodine receptor

S1P: Sphingosine-1-phosphate

siRNA: Small interfering RNA

SPA1: Signal induced proliferation association

protein 1

YFP: Yellow fluorescence protein