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LIST OF ABBREVIATIONS AND SYMBOLS

| ACh | = | acetylcholine |
|---------------------|---|--|
| ADR | = | adrenergic receptors |
| ATP | = | adenosine triphosphate |
| Atrop | = | atropine |
| AV node | = | atrioventricular node |
| BH_4 | = | tetrahydrobiopterin |
| bpm | = | beat per minute |
| °C | = | degree Celsius |
| CaCl ₂ | = | calcium chloride dihydrate |
| Cal | = | calmodulin |
| cAMP | = | cyclic adenosine monophosphate |
| CDCl ₃ | = | chloroform- d_{δ} |
| cGMP | = | cyclic guaosine monophosphate |
| CHCl ₃ | = | chlorofrom |
| COMT | = | catechol- <i>O</i> -methyl transferase |
| COSY | = | correlated spectroscopy |
| ¹³ C NMR | = | carbon-13 Nuclear Magnetic Resonance |
| DAG | = | diacylglycerol |
| 2D NMR | = | Two dimensional nuclear Magnetic Resonance |
| DMSO | = | dimethyl- d_6 sulfoxide |
| DOPA | = | dihydroxyphenylalanine |
| DP | = | diastolic pressure |
| E | = | epinephrine |
| EDRF | = | endothelium-derived relaxing factor |
| EMT | = | extraneuronal monoamine transporter |
| endo | = | endothelium |
| eNOS | = | endothelial nitric oxide synthase |
| g | = | gram |

| GC | = | gas chromatography |
|------|---|--------------------------------------|
| GTP | = | guanosine triphosphate |
| HMBC | = | Heteronuclear Multiple Bond Coherent |

LIST OF ABBREVIATIONS AND SYMBOLS (CONTINUED)

| HMQC | = | Heteronuclear Multiple Quantum Coherent | |
|----------------------|-------------------------------------|---|--|
| ¹ H NMR | = | proton Nuclear Magnetic Resonance | |
| HPLC | = | High Performance Liquid Chromatography | |
| HR | = | heart rate | |
| Hz | = | hertz | |
| IC | = | internal circumference | |
| $I_{\mathrm{K.ACh}}$ | = | inwardly rectifying potassium channel | |
| IP_3 | = | inositol triphosphate | |
| i.p. | = | intraperitoneal | |
| ISO | = | isoproterenol | |
| i.v. | = | intravenous | |
| K_{Ca} channel | = | calcium-activated potassium channel | |
| KCl | = | potassium chloride | |
| $KH_2PO_4 =$ | potassium dihydrogen orthophosphate | | |
| kg | = | = kilogram | |
| L | = | liter | |
| LNA | = | N ^G -nitro-L-arginine | |
| L-NMMA | = | N-monomethyl-L-arginine | |
| М | = | Molar | |
| MAO | = | monoamine oxidase | |
| MAP | = | mean arterial blood pressure | |
| MeOH | = | methanol | |
| mg | = | milligram | |
| MgSO ₄ | = | magnesium sulphate | |
| min | = | minute | |

| ml | = | milliliter |
|------------|---|---|
| MLCK | = | myosin light chain kinase |
| mm | = | millimeter |
| mM | = | milli Molar |
| MPLC | = | Moderate Pressure Liquid Chromatography |
| M receptor | = | muscarinic receptor |

LIST OF ABBREVIATIONS AND SYMBOLS (CONTINUED)

| MS | = | Mass Spectrometry | |
|--|-------------|---|--|
| msec | = | millisecond | |
| Myofil | = | myofilament | |
| NaCl | = | sodium chloride | |
| Na ₂ EDTA | = | disodium etylenediaminetetraacetic acid | |
| NaHCO ₃ | = | sodium hydrogen carbonate | |
| NANC | = | non-adrenergic, non-cholinergic | |
| NCX | = | sodium/calcium exchange | |
| NE | = | norepinephrine | |
| NET | = | norepinephrine transporter | |
| NOESY= | Nuclear | Overhauser Enhanced Spectroscopy | |
| | | | |
| nm | = | nanometer | |
| nm NMR | = | nanometer Nuclear Magnetic Resonance | |
| | | | |
| NMR | = | Nuclear Magnetic Resonance | |
| NMR nNOS | = | Nuclear Magnetic Resonance neuronal nitric oxide synthase | |
| NMR nNOS NO | = | Nuclear Magnetic Resonance neuronal nitric oxide synthase nitric oxide | |
| NMR nNOS NO PE | = | Nuclear Magnetic Resonance neuronal nitric oxide synthase nitric oxide phenylephrine | |
| NMR nNOS NO PE Phento | = = = | Nuclear Magnetic Resonance neuronal nitric oxide synthase nitric oxide phenylephrine phentolamine | |
| NMR nNOS NO PE Phento PIP ₂ | - | Nuclear Magnetic Resonance neuronal nitric oxide synthase nitric oxide phenylephrine phentolamine phosphatidyl inositol bisphosphate | |
| NMR nNOS NO PE Phento PIP ₂ PKG | | Nuclear Magnetic Resonance neuronal nitric oxide synthase nitric oxide phenylephrine phentolamine phosphatidyl inositol bisphosphate protein kinase G | |

| ppm | = | part per million |
|---------|---|------------------------------|
| PSS | = | physiological salt solution |
| Prop | = | propranolol |
| RP | = | reversed phase |
| RyR | = | ryanodine receptor |
| SA node | = | sinoatrial node |
| S.E.M. | = | standard error of mean value |
| SP | = | systolic pressure |
| SR | = | sarcoplasmic reticulum |

LIST OF ABBREVIATIONS AND SYMBOLS (CONTINUED)

| TFA | = | trifluoroacetic acid |
|------------|---|-----------------------------------|
| TLC | = | Thin Layer Chromatography |
| TnC | = | troponin C |
| 8 m | = | micrometer |
| UV | = | ultraviolet |
| V | = | volt |
| VMT | = | vesicle monoamine transporter |
| VSCC | = | voltage-sensitive calcium channel |
| δ | = | chemical shift |