# TABLE OF CONTENTS

**Page**

# LIST OF TABLES

# LIST OF FIGURES

**Figure** **Page**

# LIST OF SCHEMES

# ABBREVIATIONS AND SYMBOLS

| | |
|---|---|
| BC | breast cancer |
| br | broad |
| ºC | degree Celsius |
| $cm^{-1}$ | wave number |
| $CDCl_3$ | chloroform-$d_1$ |
| $CH_2Cl_2$ | dichloromethane |
| $CHCl_3$ | chloroform |
| COSY | correlation spectroscopy |
| d | doublet |
| dd | doublet of doublet |
| ddd | doublet of doublet of doublet |
| DEPT | distortionless enhancement by polarization transfer |
| EtOAc | ethyl acetate |
| EtOH | ethanol |
| ESI-TOF MS | electrospray ionization-time of flight mass spectrometry |
| g | gram |
| h | hour |
| HMBC | Heteronuclear Multiple Bond Correlation spectroscopy |
| HMQC | Heteronuclear Multiple Quantum Correlation spectroscopy |
| HPLC | High performance liquid chromatography |
| HSV-1 | herpes simplex virus type 1 |
| Hz | herz |
| $IC_{50}$ | 50% inhibitory concentration |
| IR | infrared spectroscopy |
| *J* | coupling constant (Hz) |
| KB | oral human epidermal carcinoma |
| Kg | kilogram |
| L | liter |

## **ABBREVIATIONS AND SYMBOLS** (cont.)

| | |
|---|---|
| m | multiplet |
| MeCN | acetonitrile |
| MeOH | methanol |
| Mg | milligram |
| MHz | megahertz |
| MIC | minimum inhibitory concentration |
| Min. | minute |
| mp | melting point |
| µg/mL | microgram per milliliter |
| m/z | a value of mass divided by charge |
| $NaHCO_3$ | sodium hydrogen carbonate |
| NCI-H187 | human, small cell lung cancer |
| nm | nanometer |
| NMR | nuclear magnetic resonance spectroscopy |
| NOESY | nuclear overhauser effect spectroscopy |
| ppm | part per million |
| *q* | quartet |
| *qq* | quartet of quartet |
| *s* | singlet |
| *t* | triplet |
| *td* | triplet of doublet |
| UV | ultraviolet |
| $\nu_{max}$ | maximum absorption frequency |
| $\lambda_{max}$ | maximum absorption wavelength |
| $\delta$ | chemical shift (ppm) |
| $[\alpha]_D$ | specific rotation |