

Appendix-I: Abbreviation used in thesis

ATP	Adenosine triphosphate
ALK	Anaplastic lymphoma kinase
ACN	Acetonitrile
AIA	Adjuvant induced Arthritis
AUC	Area under the curve
AST	Aspartate aminotransferase
ALT	Alanine transaminase
ALP	Alkaline phosphatase
BK2	Bradykinin-2
BBr ₃	Boron tribromide
BTK	Bruton's tyrosine kinase
CD	Crohn's diseases
COX-2	Cyclooxygenase-2
CRTH2	Chemoattractant receptor-homologous molecule expressed on TH2 cells
CCR4	Chemokine receptor 4
CNF	Ciliary neurotrophic factor
CYS	Cysteine
CRGs	Covalent reactive groups
CHCl ₃	Chloroform
CYP	Cytochrome p450
CIA	Collagen Induced Arthritis
CD4	Cluster of differentiation 4
CO ₂	Carbon dioxide
Cl	Clearance

DOR	Delta opioid receptor
DMARD	Disease-modifying anti-rheumatic drugs
DHFR	Dihydrofolate reductase
DCM	Dichloromethane
DMF	<i>N,N</i> Dimethyl formamide
DIPEA	<i>N,N</i> Diisopropylethylamine
DMSO	Dimethyl sulfoxide
EPO	Erythropoietin
EtOH	Ethanol
EDC.HCl	(3-Dimethylamino-propyl)-ethyl-carbodiimide Hydrochloride
EtOAc	Ethyl acetate
ErbB	Epidermal growth factor receptor
EDTA	Ethylenediaminetetraacetic acid
FT IR	Fourier Transform Infrared
Fe	Iron
FACS	Fluorescence-activated cell sorting
G-CSF	Granulocyte colony-stimulating factor
GH	Growth hormone
GM-CSF	Granulocyte-macrophage colony-stimulating factor
HDAC	Histone deacetylase
HPLC	High performance liquid chromatography
HCl	Hydrochloric acid
hr	Hour
HOBt	Hydroxybenzotriazole
H ₂ O	Water
hERG	Human ether-a-go-go-related gene

IBD	Inflammatory bowel disease
IBS	Irritable bowel syndromes
IL	Interleukin
IFNs	Interferons
ITK	IL2-inducible-T-cell kinase
IC ₅₀	Half maximal inhibitory concentration
IL	Interleukin
JAK	Janus kinase
JH	Janus homology
KOR	Kappa opioid receptor
kDa	Kilodalton
K ₂ CO ₃	Potassium carbonate
LTB ₄	Leukotriene B ₄
LTA-4	Leukotriene A ₄
LIF	Leukemia inhibitory factor
LiOH	Lithium hydroxide
MMP's	Matrix metalloproteinase
<i>m</i> -CPBA	meta-Chloroperbenzoic acid
MeOH	Methanol
MKK7β	Human Mitogen-activated Protein Kinase Kinase 7β
NSAIDs	Nonsteroidal anti-inflammatory drugs
NLS	Nuclear localization signal
NMR	Nuclear Magnetic Resonance
NaHCO ₃	Sodium bicarbonate
NH ₄ Cl	Ammonium Chloride
NMP	N-Methyl-2-pyrrolidone
NaN ₃	Sodium azide

nM	Nano molar
NADPH	Nicotinamide adenine dinucleotide phosphate
OA	Osteoarthritis
OSM	Oncostatin M
POCl ₃	Phosphorus oxychloride
PDE-IV	Phosphodiesterase-IV
P38 MAP	P38 Mitogen-activated protein
PRL	Prolactin
PIAS	Protein inhibitors of activated STAT
PTPs	Protein tyrosine phosphatases
PTSA	p-Toluenesulfonic acid
PBMC	Human peripheral blood mononuclear cells
PKG1 α	Protein Kinase G1 α
PDB ID	Protein data bank identification
RA	Rheumatoid arthritis
RT	Room temperature (20-30°C)
RBCs	Red blood cells
RPM	Rotation per minute
SK	Sphingosine Kinase
SYK	Spleen tyrosine kinase
STAT	Signal transducers and activators of transcription
SOCS	Suppressors of cytokine signaling
SUMO	Small ubiquitin-like modifier
SD rats	Sprague-Dawley rats
TACE	Tumour necrosis factor-alpha converting enzyme
TYK2	Tyrosine kinase 2
TPO	Thrombopoietin

TMS	Tetramethylsilane
TEA	Triethylamine
THF	Tetrahydrofuran
TFAA	Trifluoro acetic anhydride
TBILI	Total bilirubin
UC	Ulcerative colitis
URAT-1	Urate transporter 1
UPLC	Ultra performance liquid chromatography
WBC	White blood cells