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## ABBREVIATIONS

Ac	Acetyl
Ac <sub>2</sub> O	Acetic anhydride
AcOH	Acetic acid
AIDS	Acquired immune deficiency syndrome
AgNPs	Silver Nanoparticles
AuNPs	Gold Nanoparticles
BHP	tert-butyl hydroperoxide
BRM	Biological response modifier
BSTFA	N,O-bis(trimethylsilyl)trifluoroacetamide
CHCl <sub>3</sub>	Chloroform
CH <sub>3</sub> I	Methyl iodide
CH <sub>3</sub> OH	Methanol
Cm	Centimetre
CMC	Carboxymethyl chitosan
°C	Degree centigrade
1D	One Dimensional
2D	Two Dimensional
Da	Dalton
DAPHP	2,6-diaminopyridinyl heparin
DAPI	4',6-diamidino-2-phenylindole
DEAE	Diethyl aminoethyl
DEPT	Distortionless enhancement by polarization transfer
DMEM	Dulbecco's modified Eagle's medium
DMF	Dimethyl formamide
DNA	Deoxy ribo nucleic acid
D <sub>2</sub> O	Deuterium oxide
DQF-COSY	Double-quantum filtered correlation spectroscopy
FACS	Fluorescence assisted cell sorting
FTIR	Fourier Transform Infra Red

Gal	Galactose
GLC	Gas-liquid chromatography
GLC-MS	Gas liquid chromatography- mass spectrometry
Glc	Glucose
GPC	Gel permeation chromatography
h	Hour(s)
HA	Hyaluronic acid
HBSS	Hank's balanced salt solution
HMBC	Hetero nuclear multiple bond correlation
HOD	Deuterated water
<i>J</i>	Coupling constant
LPS	Lipopolysaccharide
M	Molar
m	Meter
Man	Mannose
MDA	Malondialdehyde
Me	Methyl
MeOH	Methanol
mg	Milligram
MHz	Mega hertz
min	Minute(s)
ml	Mililiter
mm	Milimeter
mM	Millimolar
MRI	Magnetic Resonance Imaging
MTT	3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide
MW	Molecular weight
NK	Natural killer cell
nm	Nanometer
NMR	Nuclear magnetic resonance
NO	Nitric oxide

NOE	Nuclear overhauser effect
NOESY	Nuclear overhauser enhancement spectroscopy
OD	Optical density
<i>p</i>	Pyranose
pH	The negative logarithm of hydrogen ion activity ( $-\log_{10}[\text{H}^+]$ )
PBS	Phosphate buffered saline
PEG	Polyethylene glycol
PMAA	Partially methylated alditol acetate
ppm	Parts per million
PS	Polysaccharide
PSK	Protein bound polysaccharide
PSP	Polysaccharide peptide complex
Py	Pyridine
ROE	Rotational nuclear overhauser effect
ROESY	Rotating frame overhauser enhancement spectroscopy
ROS	Reactive oxygen species
rpm	Rotation per minute
RPMI	Roswell Park Memorial Institute
SAED	Selected Area Electron Diffraction
SDPS	Smith degraded polysaccharide
SDS	Sodium dodecyl sulfate
SEM	Scanning Electron Microscope
SERS	Surface-enhanced Raman scattering
SPI	Splenocyte proliferation index
TCA	Trichloroacetic acid
TEM	Transmission Electron Microscope
TFA	Trifluoroacetic acid
TMS	Tetramethyl Silane
TNF	Tumor necrosis factor
TOCSY	Total correlation spectroscopy
UV-vis	Ultraviolet Visible

XRD	X-ray diffraction
μg	Microgram
μL	Microliter
μM	Micromolar