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LIST OF ABBREVIATIONS

 Δ diC-6-S unsaturated chondroitin-6-sulfate

 Δ diC-4-S unsaturated chondroitin-4-sulfate

PG proteoglycan

HSPG heparan sulfate proteoglycan

CSPG chondroitin sulfate proteoglycan

CS chondroitin sulfate

HS heparan sulfate

HA hyaluronan

GalNAc N-acetylgalactosamine

GlcNAc N-acetylglucosamine

GlcUA glucuronic acid

MAb monoclonal antibody

mRNA messenger ribonucleic acid

OA osteoarthritis

non-OA non-osteoarthritis

AST aspartate aminotransferase

ELISA enzyme-link immunosorbance assay

OPD o-Phenylenediamine

b-HABP biotinylated-hyaluronan binding protein

°C degree Celsius

kDa kilodaltons

M molar

 μg microgram

 μ microliter

ml milliliter

mg milligram

nm nanometer

ng nanogram

nmol nanomol

PBS phosphate buffer saline

CV coefficient of variance

Y years