



List of abbreviations

Genes in italics

ADAM	A disintegrin and metalloproteinase	HGF	hepatocyte growth factor
<i>Agrp</i>	Agouti-related protein	HGF/SF	hepatocyte growth factor/scatter factor
<i>ATIII</i>	anti-thrombin III gene	<i>hh</i>	hedgehog
BMP	bone morphogenic protein	HS	heparan sulfate
<i>Bgn</i> or <i>bgn</i>	biglycan	<i>Hs2st</i>	heparan sulfate 2-sulfotransferase
<i>Cmd</i>	cartilage matrix deficiency (aggrecan null)	<i>Hs3st</i>	heparan sulfate 3-sulfotransferase
CS	chondroitin sulfate	<i>Hs6st</i>	heparan sulfate 6-sulfotransferase
<i>Cspg2</i>	versican	IdoA	iduronic acid
<i>Dally</i>	division abnormally delayed	<i>Ihh</i>	Indian hedgehog
<i>Dcn</i> or <i>dcn</i>	decorin	ITI	inter- α -trypsin inhibitor
<i>dlp</i>	dally-like protein	<i>Kera</i>	keratocan
<i>dly</i>	dally-like	KS	keratan sulfate
<i>dpp</i>	decapentaplegic	LDL	low density lipoprotein
DS	dermatan sulfate	<i>LP</i>	link protein
<i>en</i>	engrailed	<i>Lum</i>	lumican
Erb	receptor tyrosine kinase	NDST	N-deacetylase/N-sulfotransferase
<i>EXT</i>	exostosis (heparin/ heparan polymerase)	PAPS	3'phosphoadenosine-5'-phosphosulfate
FAK	focal adhesion kinase	PG	proteoglycan
<i>FGF</i>	fibroblast growth factor	PKC	protein kinase C
FGFR	fibroblast growth factor receptor	PMA	phorbol myristate acetate
<i>fm</i> or <i>Fmod</i>	fibromodulin	<i>Ptc</i>	patched
GAG	glycosaminoglycan	Ras	a G protein
Gal	galactose	<i>sfl</i>	sulfateless
GalNAc	N-acetyl galactosamine	<i>sgl</i>	sugarless
GDNF	glial cell-derived neurotrophic factor	SHAP	serum-derived hyaluronan-associated protein
Glc	glucose	<i>Sqv</i>	squashed vulva
GlcA	glucuronic acid	SLRP	small leucine-rich protein
GlcN	glucosamine	<i>Spz</i>	spatzle
GlcNAc	N-acetyl glucosamine	<i>synd</i>	syndecan
GlcNS	glucosamine N-sulfate	TGF	transforming growth factor
<i>gpc</i>	glypican	TIMP	tissue inhibitor of metalloprotease
HA	hyaluronan (hyaluronic acid)	TNF	tumor necrosis factor
<i>has</i>	hyaluronan synthase	<i>ttv</i>	tout velu
HBHA	heparin-binding hemagglutinin adhesion	<i>wg</i>	wingless
<i>hdf</i>	heart defect	Xyl	xylose