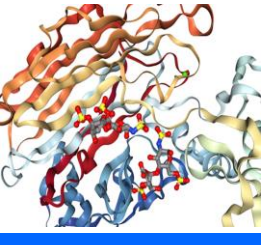
GlycoNovo

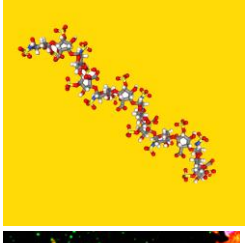
Better Your Glycoscience Work

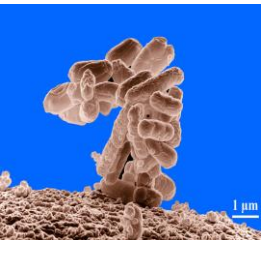
High Quality

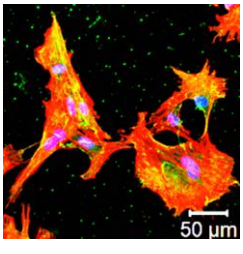
Reliable Reagents

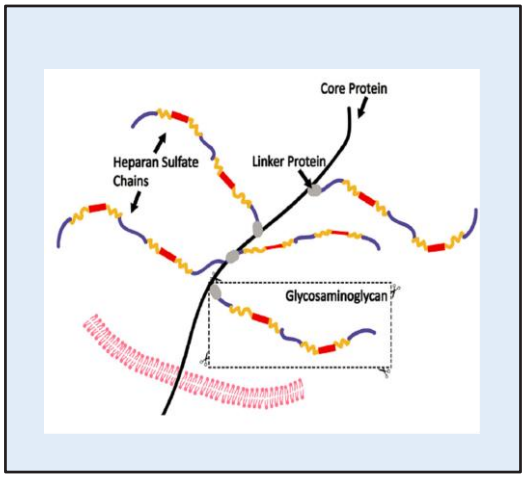
for Glycoscience

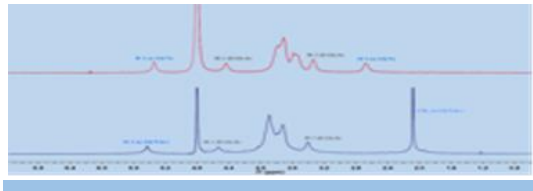












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About GlycoNovo

GlycoNovo specializes in the creation of new methodologies, the development and production of unique high quality reliable chemical and biological reagents, to better the glycoscience work.

Focusing on the field of proteoglycans and glycosaminoglycans, we have produced many reagents including enzymes, carbohydrates, antibodies, and cell lines, released in this brochure. Now we are trying to manufacture glycoprotein-related reagents, antibodies and lectins against specific glycan. In the future we will be involved in the discovery and development of carbohydrate-based in vitro diagnostic products (IVD) and new drugs.

The products released are as follows. All the products are independently developed by our company. We believe in the importance of quality, and quality of each product is stringently controlled with many methods such as activity assay, PAGE, HPGPC, HPGPC-MALLS, NMR, MS, monosaccharide or disaccharide component analysis, etc. We believe that our reliable reagents can better your glycosciece work.

Besides our standard range and pack size of product in this brochure, we can provide other related products and derivatives, on a demand basis. If you want to buy them in bulk or OEM products, please contact GlycoNovo for further information.

Glycosaminoglycan (GAG) Degrading Enzymes

Majority of GAG degrading enzymes are polysaccharide lyases, which act mainly on anionic polysaccharide to degrade glycosidic bond by a β elimination mechanism to produce unsaturated oligosaccharides with a C4-C5 double bond that absorbs at 232 nm and can be used for the detection of products. Recombinant K5 lyase A from coliphage, and heparinases I, II, III from flavobacterium heparinum are derived from E. coli with high purity and activity of degradation of heparin or heparan sulfate. K5 lyase A specifically degrades the K5 polysaccharide and the NAc region in heparan sulfate. Heparinase I degrades heparin and the S-domains of heparan sulfate. Mainly attacks and cleaves low sulfate region. Heparinase II has a broad specificity for heparin and heparan sulfate. While heparinase III only acts on heparan sulfate. It only attacks and cleaves high sulfate region. Heparinase enzymes can be used in combination to achieve almost a complete depolymerisation of heparin or heparan sulfate into constituent disaccharides.

E. coli derived recombinant Chondroitinase ABC I, II from *Proteus vulgaris* catalyzed the endo- (I) or exo- (II) eliminative degradation of polysaccharides highly specific for the galactosaminoglycan (GAG) such as Chondroitin Sulfate and Dermatan Sulfate without activity on keratan sulfate, and heparin/ heparan sulfate. *E. coli* derived recombinant hyaluronate lyase from *Streptococcus pyogenes phage* catalyze the degradation of hyaluronan into oligosaccharides by beta-elimination.

These GAG degrading enzymes are good tools for:

- Purification of GAGs
- Functional research of GAGs on cell surface
- Structure analysis of GAGs
- Analysis of core protein in proteoglycan
- IHC, Immunoblotting, IF analysis of proteoglycan

GAG Degrading Enzymes

Product name	Article no.	Pack size	Price (CNY)
Recombinant K5 Lyase A, 7.8 IU/mg	E-KFLA-0.5IU/1.0IU	0.5 IU/1.0 IU	1,000/1,800
Recombinant Heparinase I, 0.8 IU/m	E-REHEPI-0.05IU/0.1IU	0.05 IU/0.01IU	1,000/1,800
Recombinant Heparinase II, 2.7 IU/mg	E-REHEPII-0.1IU/0.25IU	0.1 IU/0.25 IU	1,000/2,250
Recombinant Heparinase III, 12 IU/mg	E-REHEPIII-0.5IU/1.0IU	0.5 IU/1.0 IU	1,000/1,800
Recombinant Chondroitinase ABC I, 206 IU/mg	E-RECSABCI-10IU/20IU	10IU/20IU	1,000/1,800
Recombinant Chondroitinase ABC II, 45 IU/mg	E-RECSABCII-5IU/10IU	5IU/10IU	1,000/1,800
Recombinant hyaluronate lyase, 5.2 IU/mg	E-REHYLP1-0.5IU/1.0IU	0.5IU/1.0IU	1,000/1,800

Selectively Desulfated Heparins

These heparin products have been made from high quality heparin modified by standard chemical methods to selectively remove sulfate groups from C2 of Iduronate (2-O-desulfated heparin), C6 of glucosamine (6-O-desulfated heparin), N-sulfate of Glucosamine (N-desulfated Heparin), or completely remove N,O-sulfate groups (completely desulfated heparin). In completely desulfated re N-sulfated heparin all the sulfate groups have been almost completely removed and the free amino group has been modified by sulfation. They can be used as tools in biological and biochemical researches.

Selectively Desulfated Heparins

Product name	Article no.	Pack size	Price (CNY)
Heparin Sodium from Porcine Intestinal Mucosa	C-HEPPIM-100mg/250mg	100mg/250mg	1,000/2,250
Heparin Sodium from Bovine Lung	C-HEPBL-100mg/250mg	100mg/250mg	1,000/2,250
2-O-Desulfated Heparin	C-2ODSHEP-2mg/5mg	2mg/5mg	1,000/2,250
6-O-Desulfated Heparin	C-6ODSHEP-2mg/5mg	2mg/5mg	1,000/2,250
N-Desulfated Heparin	C-NDSHEP-2mg/5mg	2mg/5mg	1,000/2,250
Completely Desulfated Heparin	C-CDSHEP-2mg/5mg	2mg/5mg	1,000/2,250
Completely Desulfated re N-Sulfated Heparin	C-CDSRNSHEP-2mg/5mg	2mg/5mg	1,000/2,250

K5 Polysaccharides & Derivatives

K5 polysaccharide, also known as K5 heparosan, is a capsular polysaccharide produced by the E. coli K5 strain, bearing a repeating disaccharide unit identical to the non-sulfated regions of heparan sulfate (HS). We provides the high quality size-defined K5 polysaccharide purified using our proprietary process. Made from the K5 polysaccharide after modification by standard chemical methods, epimerization or degradation with enzymes, K5 polysaccharide derivatives are chemical analogues of heparin and heparan sulfate.

K5 Polysaccharides & Derivatives

Product name	Article no.	Pack size	Price (CNY)
K5 polysaccharide,~60,000Da	C-K5PS-10mg/25mg	10mg/25m	1,000/2,250
Low-Molecular-Weight K5 Polysaccharide, ~10,000Da	C-LMWK5PS-10mg/25mg	10mg/25m	1,000/2,250
N-Deacetylated K5 Polysaccharide, ~50% N-deacetylated	C-NDAK5PS-2mg/5mg	2mg/5mg	1,000/2,250
Completely N-Deacetylated K5 Polysaccharide, 99% N-deacetylated	C-CNDAK5PS-2mg/5mg	2mg/5mg	1,000/2,250
Completely N-Sulfated K5 Polysaccharide, N-SO3-/COO- : ~1.0	C-CNSK5PS-1mg/2mg	1mg/2mg	1,000/1,800
Epimerized completely N-sulfated K5 Polysaccharide, ~50%IdA	C-EPICNSK5-1mg/2mg	1mg/2mg	1,500/2,700
Completely N,O-Sulfated K5 Polysaccharide, SO3-/COO-:~4	C-CNOSK5PS-2mg/5mg	2mg/5mg	1,000/2,250
Unsaturated Completely N-Sulfated K5 Disaccharide	C-UCNSK5OS02-1mg/2mg	1mg/2mg	1,000/1,800
Unsaturated K5 Disaccharide	C-UK5OS02-1mg/2mg	1mg/2mg	1,000/1,800
Unsaturated K5 Tetrasaccharide	C-UK5OS04-1mg/2mg	1mg/2mg	1,000/1,800
Unsaturated K5 Hexasaccharide	C-UK5OS06-1mg/2mg	1mg/2mg	1,000/1,800

K4 Polysaccharides & Derivatives

K4 polysaccharide is a capsular polysaccharide produced by the E. coli K4 strain, bearing a backbone composed of [→4)-β-D-glucuronic acid (GlcA)-(1→3)-N-acetyl-β-D-galactosamine (GalNAc)-(1→]n with a β-D-fructofuranose branched at C-3 of GlcA. After defructosylation, K4 polysaccharide is derived to a polysaccharide with the same structure as that of chondroitin, and then can be used to prepare chemical analogues of chondroitin sulfate and dermatan sulfate.

K4 Polysaccharides & Derivatives

Product name	Article no.	Pack size	Price (CNY)
Defructosylated K4 Polysaccharide	C-DFK4PS-5mg/10mg	5mg/10mg	1,000/1,800
Unsaturated DFK4 Disaccharide	C-UDFK4OS02-1mg/2mg	1mg/2mg	1,000/1,800
Unsaturated DFK4 Tetrasaccharide	C-UDFK4OS04-1mg/2mg	1mg/2mg	1,000/1,800
Completely Sulfated Defructosylated K4 Polysaccharide	C- CSDFK4-2mg/5mg	2mg/5mg	1,000/2,250

Ordering Information

Product name	Product name
Enzymes	*HS2ST1 Rabbit pAb*
Recombinant Human D-glucuronyl C5-epimerase, 1.6 IU/mg	Carbohydrates
Recombinant Human Heparan Sulfate 2-O-sulfotransferase 1	*Chondroitin Sulfate*
Recombinant Human Heparan Sulfate 6-O-sulfotransferase 1	*Chondroitin Sulfate-4*
Recombinat inorganic pyrophosphatase, 469 IU/mg	*Heparan Sulfate*
Recombinant ATP sulfurylase, 220 IU/mg	*Acharan Sulfate*
Recombinant APS kinase	*Konjac Glucomannan*
Recombinant heparosan synthase 2 (PmHS2) from Pasteurella multocida	*Low-Molecular-Weight Konjac Glucomannan*
	Sodium Hyaluronate from cockscomb
Cell lines	*Chitosan, >97% deacetylated*
THP-1/NF-KB-LUC reporter cells	*Chitosan, >99% deacetylated*
Jurkat/NFAT-LUC reporter cells	*Curdlan*
C2C12/BRE-LUC reporter cells	*Xylan*
HepG2/SMAD2/3/4-LUC reporter cells	*Amylose*
Hela/apoptosis-LUC reporter cells	*Amylopectin*
CHO-K1	*Agarose*
CHO-677, PgsD-677	Others
Antibodies	*3'-phosphoadenosine-5'-phosphosulfate, PAPS, > 98%*
HSEPI Rabbit pAb	*Recombinant human Glypican-6*
HS6ST1 Rabbit pAb	

Services

We can provide the services in the glycosciece field including:

- Isolation and Purification of Polysaccharide
- Recombinant expression of glyco-related proteins such as enzymes, proteoglycans, etc. with prokaryotic, eukaryotic, insect and mammalian cells
- Analysis of interaction between protein-carbohydrate
- Cell line establishment via transfection or transduction with AAV, lentivirus, etc.
- Antibody production against oligo-,poly-saccharide
- Purity and Structure Analysis of Polysaccharide
- Bioactivity screening and identification for your polysaccharide
- Disaccharide component analysis of GAGs
- Glycoform analysis of antibodies and other glycoproteins
- Difficult biological and biochemical experiment related to glycoscience

Form GN 09-2018

For more information about our products, services or for bulk quotations, please email to info@glyconovo.com or visit www.glyconovo.com or call 86-21-58010060, 86-199 5120 5513 (Mr. Yang), or 86-158 0086 4147 (Mr. Fang).

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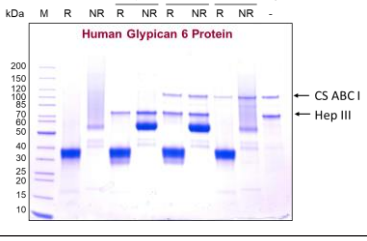

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