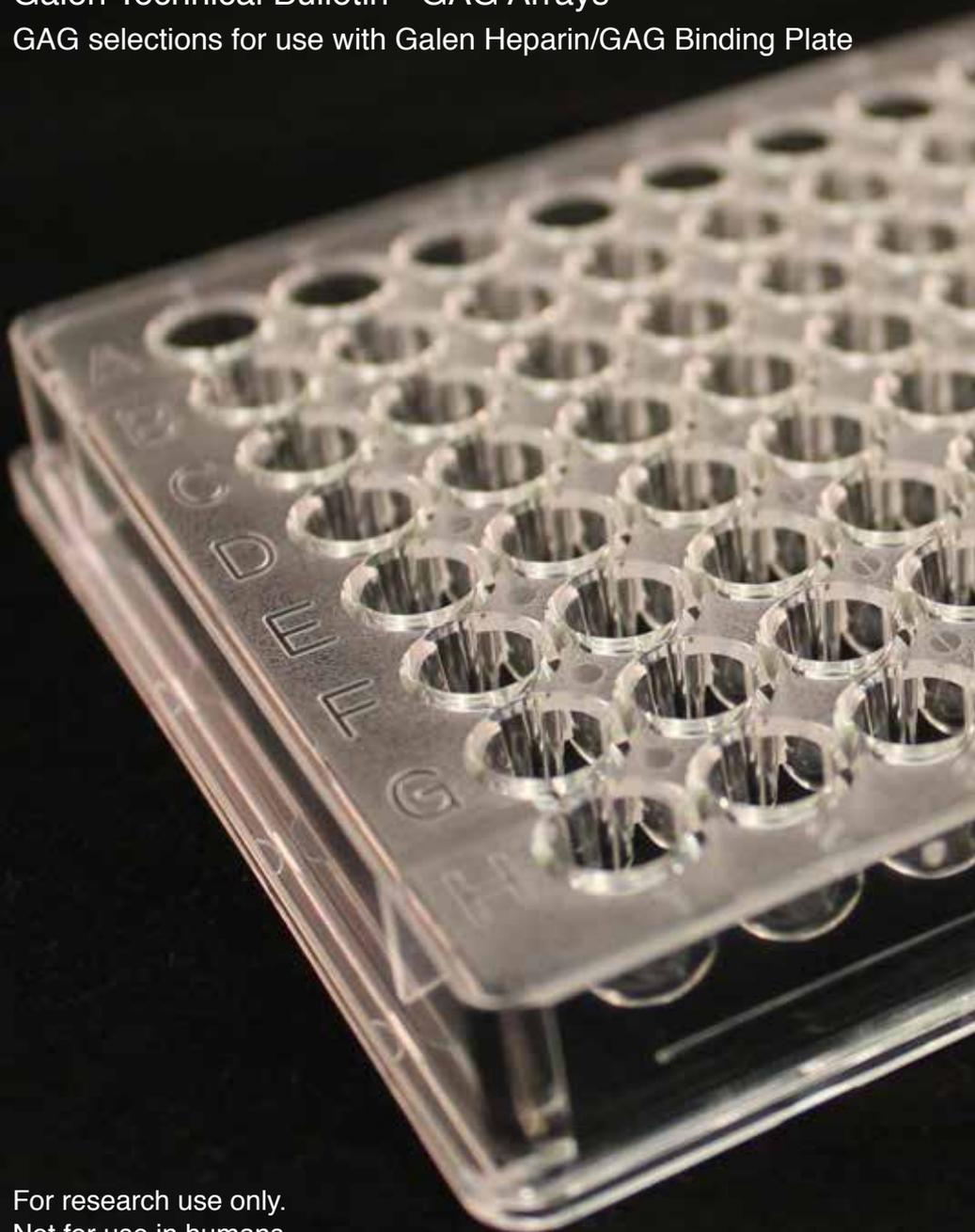


Galen Technical Bulletin - GAG Arrays

GAG selections for use with Galen Heparin/GAG Binding Plate



For research use only.

Not for use in humans.

Not for clinical, diagnostic or therapeutic applications.

## Galen technical bulletin - Galen GAG Arrays

GAG Arrays; designed for use with Galen Labs Heparin/GAG Binding Plates. The following are suggestions for GAG arrays that may be of particular value for investigation of protein-GAG interactions using Galen Labs Heparin/GAG Binding Plates.

- a) GAG Array
- b) Heparin Oligosaccharide Array
- c) Heparin/HS Compatibility Array

### a) GAG Array

This array can be used to gain information on the importance of the heparin and dermatan backbone structure and the position and density of sulphate groups for protein binding.

We recommend that the GAGs are adsorbed onto Heparin/GAG Binding Plates by setting up a dilution series from stock solutions of 50ug/ml and examining each dilution in triplicate. As an alternative to direct coating on the heparin binding plates GAG Arrays can be used as competitive inhibitors of protein binding to immobilised heparin or any other immobilised GAG species; see technical bulletin on Heparin/GAG Binding Plates for more information.

Glycosaminoglycan	Catalogue No.	Web page
*Heparin (IdoA, 2S $\alpha$ 1-GlcNS, 6S $\alpha$ 1-)	Hep001/100	Heparin/Low-In-Calcium Heparin
$\neq$ 2-O-Desulphated Heparin	DSH001/2	Selectively Desulphated Heparins
$\neq$ 6-O-Desulphated Heparin	DSH003/N	Selectively Desulphated Heparins
$\neq$ N-Desulphated Heparin	GAG-HS01	Selectively Desulphated Heparins
$\neq$ N-Desulphated reN-Acetylated Heparin	DSH004/Ac	Selectively Desulphated Heparins
Dermatan Sulphate (pig mucosa) (-4 IdoA $\alpha$ 1-3GalNAc, 4S $\beta$ 1-)	GAG-DS01	Glycosaminoglycans

\*Substrate for endosulfatases (sulfs).

$\neq$ Potential applications substrates as sulfotransferase enzymes.

More details on the structures of the items in the GAG Array are given on our website; [www.galenlabsupplies.com](http://www.galenlabsupplies.com).

## b) Heparin Oligosaccharide Array

This array could be used to determine the length of oligosaccharide required for optimum binding to a protein of interest. If the intention is to study protein-protein interactions (for example the interaction of a growth factor with its receptor) a longer heparin oligosaccharide chain may be required than that needed for the binding of an individual protein. This could arise if the heparin sequence acts as a template for binding growth factor and receptor in close proximity.

<a href="#">Glycosaminoglycan</a>	<a href="#">Catalogue No.</a>	<a href="#">Web page</a>
Heparin Oligosaccharide	H004 – H030	Heparin Oligosaccharides

Standard discount applies.

\$0-1500 - No discount

\$1501-3000 - 5% discount

\$3001-6000 10% discount

\$6001- 20% discount

NB: only oligosaccharides down to decasaccharide (dp10) have been evaluated for binding to the Heparin/GAG Binding Plate.

### c) Heparin/HS Compatibility Array

This array can be used to find which of Iduron's naturally-occurring heparins and heparan sulphates (HS) is most effective at binding proteins of interest. High sulfation per se may not always be the major factor. The biological activity and/or antigenic properties of a protein may be selectively enhanced by specific GAG species.

Glycosaminoglycan	Catalogue No.	Web page
Heparin – high grade	HEP001/100	Heparin/Low-In-Calcium
Low in Calcium Heparin – high	LCaHEP002/100	Heparin/Low-In-Calcium
Heparin (mol wt >9000 Daltons)	HO30	Heparin/Low-In-Calcium
Heparan Sulfate (low and high sulfated HS)	GAG-HS01	Glycosaminoglycans

Details of the molecular structure of the listed heparins and heparan sulfates can be found on our website; [www.galenlabsupplies.com](http://www.galenlabsupplies.com).