



Product Data Sheet

AmberChrom™ CG161M Chromatography Resin

Chromatographic-grade Resin for Purification

Description

AmberChrom™ CG161M Chromatography Resin is a macroporous polymeric resin used for adsorption and reversed-phase liquid chromatography. AmberChrom™ CG161M is specifically designed for the cost-effective, large-scale purification of proteins, peptides, nucleic acids, antibiotics, and small molecular weight pharmaceutical ingredients. The product is suitable for use in many pharmaceutical applications in front-end capture, downstream purification, and desalting modes of operation.

AmberChrom™ CG161M is a rigid, insoluble, polystyrene-divinylbenzene polymer that is mechanically stable and chemically robust to standard reversed-phase solvents and cleaning agents. Its high surface area, unique pore size, and pore volume distribution make it ideally suited for the separation of peptides. Its narrow, controlled particle size distribution and mechanical stability enable high flow which, coupled with its high capacity for many pharmaceutical compounds, provide excellent process throughput in operation.

Its high degree of chemical stability enables AmberChrom™ CG161M to be operated within the entire pH range, and the product can be easily cleaned in place (CIP) with most organic solvents and dilute acids and bases. It is an excellent technical and economical alternative to RPC silica, and can be used in high-resolution, low-pressure chromatography.

Applications

- Separation of penicillin derivatives
- Kinetic exclusion chromatography
- Separation of nucleosides

Typical Properties

Physical Properties

Copolymer	Styrene-divinylbenzene
Matrix	Macroporous
Type	Adsorbent
Physical Form	Opaque, white, spherical beads

Nitrogen BET

Surface Area	900 m ² /g
Average Pore Diameter	150 Å

Chemical Properties

Functional Group	None
Shipping Solvent	20% ethanol
Chemical Resistance	Insoluble in dilute solutions of acids or bases and common solvents: IPA, ACN, MeOH

Particle Size

Particle Diameter, mean [‡]	75 µm
Uniformity Coefficient	1.7

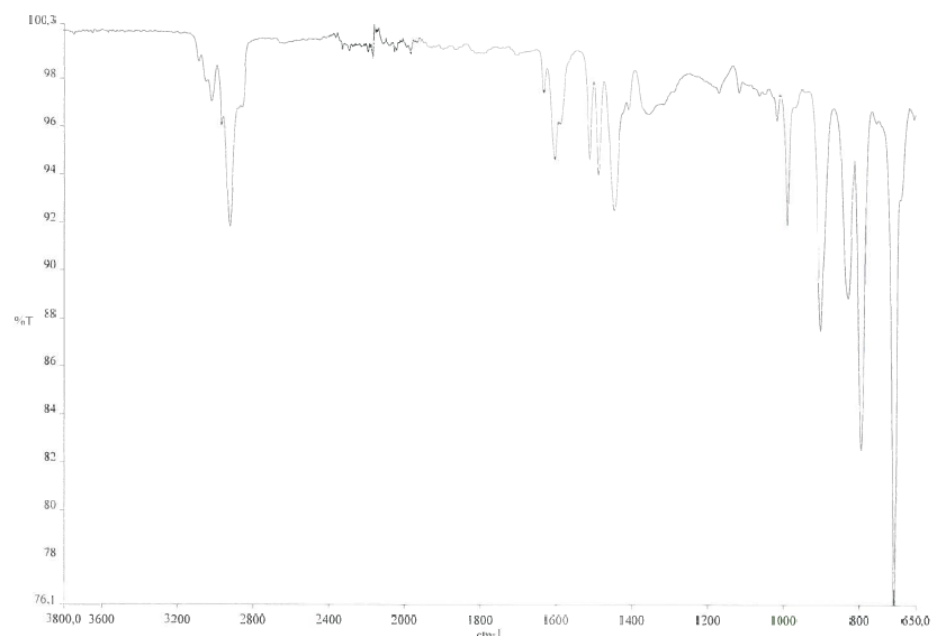
Stability

Swelling (in solvent):

Water	0%
Methanol	8%
Ethanol	6%
Isopropanol	12%
Acetonitrile	12%
Acetone	14%
Toluene	4%
Dry	-10%

[‡] In addition to M-grade (75 µm), S-grade (35 µm), and C-grade (120 µm) are available as specialty products. The product can also be provided as a dry material upon request.

IR Spectrum



Regulatory Status

DuPont can provide regulatory support for AmberChrom™ CG161M Chromatography Resin to end users under confidentiality, upon request.

Product Stewardship

DuPont has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with DuPont products—from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

Customer Notice

DuPont strongly encourages its customers to review both their manufacturing processes and their applications of DuPont products from the standpoint of human health and environmental quality to ensure that DuPont products are not used in ways for which they are not intended or tested. DuPont personnel are available to answer your questions and to provide reasonable technical support. DuPont product literature, including safety data sheets, should be consulted prior to use of DuPont products. Current safety data sheets are available from DuPont.

Please be aware of the following:

- **WARNING:** Oxidizing agents such as nitric acid attack organic ion exchange resins under certain conditions. This could lead to anything from slight resin degradation to a violent exothermic reaction (explosion). Before using strong oxidizing agents, consult sources knowledgeable in handling such materials.

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