

Bio-Rex[™] Resins

Family Members

- Bio-Rex 5 Resin
- Bio-Rex 70 Resin
- Bio-Rex Reactor Grade Resin

At a Glance

The Bio-Rex Resins are weak ion exchangers. They are available in various sizes to aid laboratory- to manufacture-scale purifications.

Bio-Rex 5 Resins

Features

- Weak anion exchangers that contain mostly tertiary and some quaternary amines
- Exhaustively sized, purified, and converted to make them suitable for accurate, reproducible analytical techniques
- Available in two dry mesh sizes (100–200 and 200–400) with analytical grade purity

Bio-Rex 5 Technical Specifications

| Functional group | R-N ⁺ (CH ₃) ₂ C ₂ H ₄ OH | | |
|------------------------------|---|--|--|
| Matrix | Styrene divinylbenzene | | |
| Crosslinkage | 4% | | |
| Approx. MW exclusion | 1,400 | | |
| Operating stability/pH range | <7/0-14 | | |
| Min. wet capacity (meq/ml) | 1.1 | | |
| Nominal density | 0.7 | | |
| Ionic form | Chloride | | |

Applications

- Have an affinity for organic acids that can be used to remove acids from sugars
- Exchange anions such as iodide, bromide, and chloride with weak interactions

Bio-Rex 70 Resins

Features

- Weak cation exchangers that contain mostly tertiary and some quaternary amines
- Functional group: carboxylic acid exchange groups on a macroreticular acrylic polymer lattice
- Available in both analytical and biotechnology grades
 - Analytical grade: exhaustively sized, purified, and converted to make it suitable for accurate, reproducible analytical techniques
 - Biotechnology grade: analytical grade resin that has been certified to contain less than 100 microorganisms per gram of resin

Applications

 Purification and fractionation of peptides, proteins, antibiotics, and other cationic molecules



Bio-Rex Reactor Grade Technical Specifications

| Resin | Crosslinkage | Approx. MW Exclusion | Operating Stability/pH Range | Min. Wet Capacity | Nominal Density | Ionic Forms |
|--|--------------|-------------------------|------------------------------------|-------------------|-----------------|--------------|
| Bio-Rex MSZ 501(D) Resin | | | | | | |
| Type: Mixed bed | 8 and 10% | 1,000 | 0-14/0-14 | 1.5 meq/ml | 0.72 g/ml | $H^+ + OH^-$ |
| Functional group: $R-SO_3^-$ and $R-CH_2N^+(CH_3)_3$ | | | | | | |

Bio-Rex Reactor Grade Resin

Features

- Uniform bead size, which minimizes pressure drops and increases resin capacity; used for desalting water and other nonelectrolytes
- Contains a dye that changes from blue-green to gold when its exchange capacity is exhausted

Applications

 Bio-Rex RG 501-X8 and Bio-Rex MSZ 501(D) Resins used for power plant deionization systems and large-scale cleanup of metals from wastewater

Additional Information

Usage of Bio-Rex 5 Resin, bulletin LIT207 Usage of Bio-Rex 70 Resin, bulletin LIT206 Usage of Bio-Rex MSZ 501(D) Resin, bulletin LIT205

Large bulk volumes and special packaging for industrial applications are available on request.

For technical/product support or to request a quote, email your regional Bio-Rad representative or contact customer service at 1-800-4-BIORAD (1-800-424-6723).

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Bulletin 6907 Ver A US/EG 17-0312 0317 Sig 1216

