Chelex 100 sodium form

Analytical grade resin

Product Number: C27971
Appearance: White moist powder (swollen beads)
Capacity of Sodium Form: 0.7 meq/ml
Storage Temperature: Room Temperature

Structure

A styrene-divinylbenzene copolymer containing paired iminodiacetate ions which act as chelating groups in binding polyvalent metal ions. It is considered a weakly acidic resin.

Usage

Product is autoclavable in sodium form. It has a maximum operating temperature of 75°C and is not soluble in water. Binding is a function of pH. Absorption is very low below pH 2 and increases sharply from pH 2 to 4. It reaches a maximum above pH 4. Optimum binding for many divalent cations is at pH 6.5 or higher.Its selectivity for divalent over monovalent ions is approximately 5000 to 1, and it has a very strong attraction for transition metals, even in highly concentrated salt solutions. Actual selectivity values for any particular system depend on the pH, ionic strength, and presence of other complex-forming species. Metals can be removed using either the batch or column technique, although the column technique is more efficient. With 50-100 mesh, rapid flow rates are obtained and large volumes of solution can be processed in very little time. Resin can be regenerated by washing in the following sequence: 2 bed volumes of 1 N HCl, 5 bed volumes water, 2 bed volumes of 1 N NaOH, 5 bed volumes water.

Applications

Removal of metals from enzyme solutions[2]

Removal of metals from cell suspensions[3]

Calcium removal from dinucleotides[4]

Calcium removal from calmodulin and buffer[5]

Removal of calcium from erythrocyte lysates[6]

Reducing calcium and magnesium concentrations in tissue culture medium Effect of pH and ionic strength on chelating properties[8]

Stability of metal complexes[9]

Trace metal studies[1]

As a medium for extraction of DNA from forensic-type samples[10]

Removal of metal ion from guinea pig complement[11]

References

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Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.