

Chitosan ($\geq 90\%$ deacetylated, viscosity 650-700 mPa.s)

Chemical Properties

CAS No. :

Formula:

Molecular Weight:

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.

Biological Description

Description	Chitosan (Deacetylated chitin) ($\geq 90\%$ deacetylated, viscosity 650-700 mPa.s) is a polysaccharide derived from the deacetylation of chitin, exhibiting antibacterial activity against various bacteria and fungi. With its high degree of deacetylation and specific viscosity, Chitosan can serve as a multifunctional biomaterial in drug delivery, tissue engineering, and wound healing applications.
Targets(IC50)	Antibacterial, Antifungal
In vitro	Chitosan is a versatile compound with applications across various fields. Low molecular weight chitosan is capable of penetrating bacterial cell walls, binding to DNA, and inhibiting both DNA transcription and mRNA synthesis. In contrast, high molecular weight chitosan interacts with the negatively charged components of bacterial cell walls, forming a watertight layer that alters cell permeability and obstructs transport into the cell. Additionally, chitosan is employed in water treatment, wound healing materials, as a pharmaceutical excipient or drug carrier, in obesity research, and as a scaffold in tissue engineering.
In vivo	In a study using ICR mice with chemically induced precancerous colon lesions, mice fed a diet containing high molecular weight chitosan (HMWC) for 2 weeks showed a significant reduction in aberrant crypt foci formation compared to those on a control diet. When the treatment period was extended to 6 weeks, both low molecular weight chitosan (LMWC) and HMWC diets resulted in fewer aberrant crypt foci compared to the control group.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel: 781-999-4286 E_mail: info@targetmol.com Address: 34 Washington Street, Wellesley Hills, MA 02481