5 oktober 2023

DTU DOCX: 23/1014078
kkno

Specification

Sodium hyaluronate (produced from *Streptococcus equi subsp. Zooepidemicus*)

References

Virksomheds bilag 1
Merck [Sigma-Aldrich]
Serra et al. 2023 [Link]
CAS SciFinder^{n} [Link]

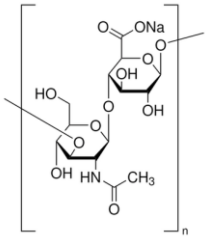
Navn Sodium hyaluronate

CAS No 9067-32-7

Synonyms Hyaluronic acid, sodium salt

Description Bacterial glycosaminoglycan polysaccharide. Hyaluronic acid is a naturally occurring biopolymer. It is a linear, non-sulfated glycosaminoglycan that is composed mainly of repeating units of N-acetylglucosamine and glucuronic acid linked by β- (1-4) and β- (1-3) glycosidic bonds.

Structural formula Poly(β-glucuronic acid-[1→3]-β-N-acetylglucosamine-[1→4]), alternating.



Molecular weight Hyaluronic acid is composed repeating units of N-acetylglucosamine and glucuronic acid linked by β- (1-4) and β- (1-3) glycosidic bonds. The disaccharide presents a molecular weight of around 400 Da. A hyaluronic acid chain can be composed of 10,000 disaccharides, which means a molecular weight of around 4.0 × 10^3 kDa.

Production *Streptococcus zooepidemicus* produces a high molecular weight hyaluronic acid. It does not require the use of toxic chemicals or solvents in the media and downstream processing, resulting in a pure and safe end-product.

Assay 95% weight.

Appearance Light cream solid powder.

DTU Fødevareinstituttet
Fødevareinstituttet
Kemitorvet
Bygning 201
2800 Kongens Lyngby
Tlf. 35 88 70 00
Dir. 35 88 75 21
kkno@food.dtu.dk
www.food.dtu.dk

Solubility Soluble in water

pH 5.5 – 7.5 in 1% solution.

Stability Stable under normal conditions.

Identification