

# Fluorescein Hyaluronic acid (FHA-Se)

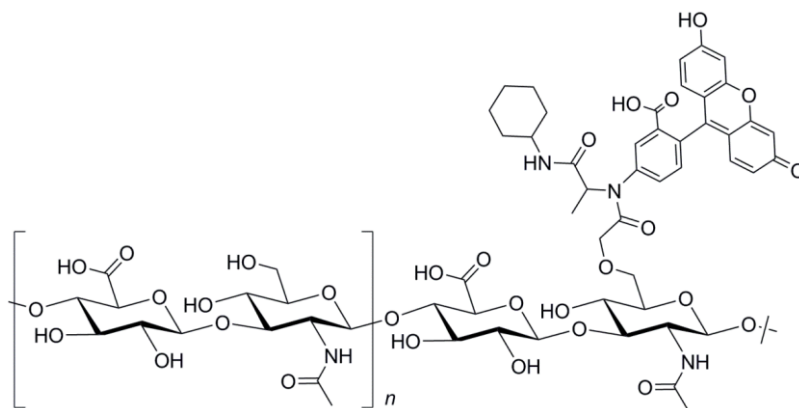
**Chemical names:** 5-aminofluorescein-labelled hyaluronate

5-aminofluorescein-labelled hyaluronan

**Trade name:** Fluorescein Hyaluronic acid (FHA-Se)

**CAS nr:** N/A

**Structure:**

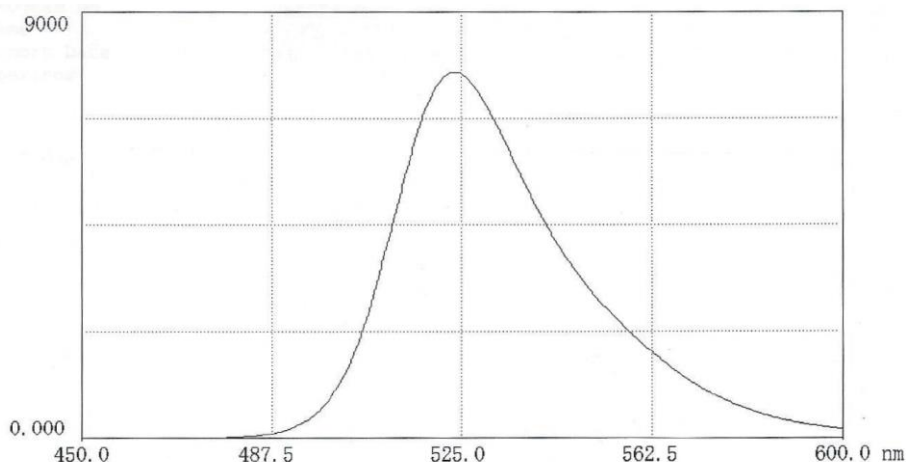


*Fig. 1. Structural representation of Fluorescein Hyaluronic acid (FHA-Se).*

## Properties

Hyaluronic acid, a polysaccharide composed of alternating  $\beta(1-3)$  glucuronide and  $\beta(1-4)$  glucosaminide units-derived from *Streptococcus equi*, is labelled with 5-amino- fluorescein giving a yellow fibrous product that is soluble in water and electrolytes, however, the solid requires prolonged gentle stirring – overnight – to dissolve (1). The product is designated by the approximate molecular weights of the hyaluronic acid used, which is approximately 1.5 MDa.

## Spectral data



*Fig. 1. Fluorescence scan of FITC-hyaluronic acid in 0.025M borate pH 9.0 (12mg in 50 ml buffer). Excitation 495nm; Emission 524nm.*

## Storage and stability

The dried product should be stored in air-tight containers at ambient temperatures in the dark. A shelf-life of 5 years is proposed. No release of fluorescent material was noted when a solution of the product was incubated at pH 7.5 at 37°C for one month (1). Applications Many applications of hyaluronan have appeared over the past years both in medicine (particularly its indispensable contribution to eye surgery) and in cosmetics. Fluorescein-labelled hyaluronic acid may be used as a probe for following the fate of hyaluronan in vitro. A FITC-labelled hyaluronic preparation greatly enhanced the visualisation of the permeation of the substrate through skin (2). Other applications of fluorescein labelled hyaluronic acid have appeared (3-6)

## References

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5. D.Cheng, W. Han, K. Song et al., One-step facile synthesis of hylauronic acid functionalized fluorescent gold nanopores sensitive to hyaluronidase in urine specimen from bladder cancer patients, *Talanta*, 130(2014), 408-14.
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