

The manuscript attempts to establish a multi-technique quality control approach (DLS + ATR-FTIR+intrinsic radiothermal emission detection) for hyaluronidase and its azoximer-conjugated derivative. The combination shows a certain degree of novelty and, after major revision, would be suitable for publication in Scientia Pharmaceutica. However, major revisions are required to meet the journal's standards for scientific rigor and clarity before it can be considered for publication. Specific major concerns are listed below:

1. The first third of the Introduction (Section 1.1) is essentially a general review of hyaluronic acid that is only loosely connected to the core topic—quality control of hyaluronidase pharmaceuticals. This part should be significantly shortened; only the most relevant aspects (molecular-weight-dependent functions and their relation to fibrosis, oncology, and osteoarthritis) need to be retained.
2. The term “bovine hyaluronidase azoximer” has a strong non-native phrasing and should be uniformly replaced throughout the manuscript with the standard scientific nomenclature “azoximer-conjugated hyaluronidase” (or “azoximer – hyaluronidase” ). Using the registered trade name “Longidaze®” for the modified product and “Lidaza®” for the conventional hyaluronidase products is strongly recommended, as these are widely recognised by the pharmaceutical community.
3. Section 2.1 provides only Russian registration numbers. The commercial/trade names, manufacturers, batch numbers, and expiry dates of the tested products must be explicitly stated to ensure traceability and reproducibility.
4. Shelf-life correlation using RTE was performed only for the azoximer-conjugated product (Longidaze®/BovHYAL). No expired samples of conventional hyaluronidase (Lidaza®) were examined, resulting in an obvious imbalance. This limitation should either be addressed experimentally or clearly acknowledged and justified in the text.
5. The conclusions are severely overstated. Phrases such as “The study resolved the issue ...” and claims that the proposed methods are “dependable and sensitive approaches” constitute overstatement. The work merely explores and preliminarily evaluates these techniques; it is far from resolving a recognised analytical challenge in the field. All such absolute claims must be toned down to appropriate wording (e.g., “suggests”, “offers a promising supplementary tool”, “preliminary results indicate ...” ).

Addressing the above points through major revision is required before the manuscript can be reconsidered for publication in Scientia Pharmaceutica.