

Quaternary Amines Analysis by LCMS Finding the Right Ion - Tech Information

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LC-MS Analysis of Quaternary Amines: Key Considerations

When analyzing quaternary amines by LC-MS, remember that these compounds are permanently charged. Unlike tertiary amines, which typically appear in positive ion mode as $[M + H]^+$, quaternary amines do not require protonation they are already ionized.

For accurate identification:

- In your extracted ion chromatograms (EICs), target the $[M]^+$ ion rather than $[M + H]^+$.
- Searching for $[M + H]^+$ may yield no peak or a peak from an unrelated compound, since quaternary amines do not form this ion.

Following this approach helps ensure correct peak assignment and prevents misidentification of your analyte.



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