# HIS Lite™ Cy5 Tris NTA Chelator

Catalog Number: 12659
Unit Size: 100 ug

## Product Details

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|---|---|
| Storage Conditions | Freeze (< -15 °C), Minimize light exposure |
| Expiration Date | 24 months upon receiving |

## Chemical Properties

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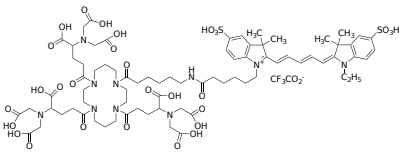
|---|---|
| Appearance | Solid blue |
| Molecular Weight | 1801.87 |
| Soluble In | Water |
| Chemical Structure |  |

## Spectral Properties

| | |
|---|---|
| Excitation Wavelength | 651 nm |
| Emission Wavelength | 670 nm |

## Applications

Cy5-Tris NTA compound is a sensitive fluorescent chelator for detecting polyhistidine-labeled proteins in cells, solution and solid surfaces with the addition of certain metal ions (such as Ni2+, Co2+ etc.) as a mediator. It is the chelator of our HIS Lite™ Cy5 Tris NTA-Ni Complex (#12619). In combination with other color tris-NTA compounds (such as #12615 and #12617), it can be used for multicolor analysis of polyhistidine-tagged proteins. Fluorescent tris-NTA compounds provide an efficient method for site-specific and stable noncovalent fluorescence labeling of polyhistidine-tagged proteins. In contrast to the transient binding of conventional mono-NTA, the multivalent interaction of tris-NTA conjugated fluorophores form a much more stable complex with polyhistidine-tagged proteins. The high selectivity of tris-NTA compounds toward cumulated histidines enables the selective labeling of proteins in cell lysates and on the surface of live cells. Fluorescent tris-NTA conjugates can be applied for the analysis of a ternary protein complex in solution and on surfaces. The transition metal ions (e.g., Ni2+)-mediated complexation of polyhistidine-labeled proteins with fluorescent tris-NTA conjugates provides a sensitive reporter for detecting and monitoring protein-protein interactions in real time.