

HIS Lite™ Cy3 Tris NTA Chelator

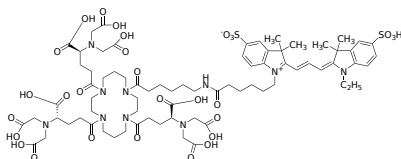
Catalog Number: 12660

Unit Size: 100 ug

Product Details

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

Chemical Properties

Appearance	Solid
Molecular Weight	1661.81
Soluble In	Water
Chemical Structure	

Spectral Properties

Excitation Wavelength	555 nm
Emission Wavelength	569 nm

Applications

Cy3-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™ Cy3 Tris NTA-Ni Complex (#12620). 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. In combination with other color tris-NTA compounds (such as #12655 and #12657), it can be used for multicolor analysis of polyhistidine-tagged proteins. 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.