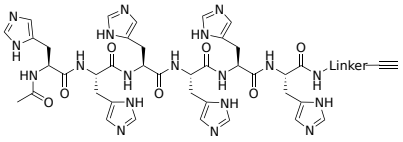
6XHis alkyne

Catalog Number: 12629
Unit Size: 1 mg

Product Details

Storage Conditions	Freeze (< -15 °C), Minimize light exposure
Expiration Date	12 months upon receiving

Chemical Properties

Appearance	Solid light yellow
Molecular Weight	1120.21
Soluble In	DMSO
Chemical Structure	

Spectral Properties

Excitation Wavelength	N/A
Emission Wavelength	N/A

Applications

6XHis alkyne is an excellent building block to make 6XHis conjugates for developing His tag detection probes and purification tools through the well-known click chemistry. It readily reacts with a biomolecule that contains an azido group. The 6xHis tag is the most common his-tag and has a molecular weight of ~0.8kDa. His-tags (i.e., polyhistidine tags) comprise a consecutive series of six to ten histidine residues. His tags are used for many recombinant proteins to facilitate purification, allowing researchers to extract a protein of interest from thousands of other proteins found in a cell or cell lysate. The small size of the 6x-His tag has a lower possibility for the tag to affect the functionality of the fusion protein. Histidine forms coordination bonds with immobilized transition metal ions, and this property can be utilized for protein purification. His-tag protein purification is by a specialized form of affinity chromatography, called immobilized metal affinity chromatography (IMAC), where proteins or peptides are separated according to their affinity for metal ions immobilized to a solid chelating resin. During this process, a small His-tag is fused to either the N or C terminus of the target protein, enabling capture by nickel or cobalt ions coordinated on a variety of resins. The small size, low cost, and ease of use have made the His-tag the most popular affinity-tag available. AAT Bioquest offers the largest collection of 6XHis, NTA, bis-NTA, tris-NTA and IDA reagents for His Tag detections and purifications.