

IDA maleimide

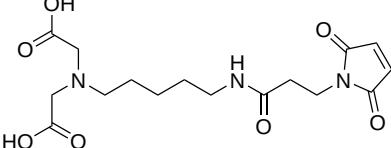
Catalog Number: 12631

Unit Size: 5 mg

Product Details

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

Chemical Properties

Appearance	Solid white
Molecular Weight	369.37
Soluble In	DMSO
Chemical Structure	 The chemical structure of IDA maleimide is shown. It consists of a 1,4-dihydroimidazole-2,5-dione ring system. Attached to the nitrogen atom of the imidazole ring is a 4-aminobutyl group. The 4-aminobutyl group is a four-carbon chain ending in an amino group (-NH2). The first carbon of this chain is also bonded to a hydroxyl group (-OH) and a carboxylic acid group (-COOH).

Spectral Properties

Excitation Wavelength	N/A
Emission Wavelength	N/A

Applications

Immobilized metal affinity chromatography (IMAC) is a popular method for protein purification, particularly for recombinant proteins fused to a polyhistidine-tag. Transition metal ions immobilized to a matrix through a chelating ligand interact with the polyhistidine-tag, effectively sequestering the fused protein from a sample. Nitrilotriacetic acid (NTA) and iminodiacetic acid (IDA) are two such ligands commonly used in commercially available resins. AAT Bioquest offer a variety of NTA building blocks for developing either NTA-based purification and detection. IDA is complementary to NTA. The tridentate IDA ligand requires a lower imidazole concentration to elute protein than the tetradeinate NTA. IDA is a smaller molecule which can be coupled to the matrix at a higher density resulting in a higher metal loading capacity. IDA maleimide is an excellent building block that can be used to develop a variety of IDA probes for detecting polyHis-containing proteins, and tools for purifying polyHis tagged proteins.