
Product Information Sheet

Ordering Information

Product Number:	19010
Product Name:	EDTA, AM ester
Unit Size:	10x50 ug
Storage Conditions:	Freeze (<-15 °C), Minimize light exposure
Expiration Date:	12 months upon receiving

Chemical and Spectral Properties

Appearance:	Solid
Molecular Weight:	580.50
Soluble In:	DMSO
Excitation Wavelength:	N/A
Emission Wavelength:	N/A

Application Notes

Ethylenediaminetetraacetic acid (EDTA) might be the most popular metal ion chelator used for both industrial and medical purposes. It is widely used to chelate transitional metal ions, e.g., nickel, cobalt, ferric, ferrous, mercury, lead and other metal ions such as calcium and magnesium. After being bound by EDTA into a metal complex, metal ions generally exhibit diminished reactivity. EDTA is not permeable to live cells. EDTA, AM ester is the cell-permeant derivative of EDTA. Live cells are passively loaded with EDTA, AM by incubation with the cell membrane-permeant EDTA AM ester. Once internalized, cytosolic esterases cleave the AM esters to liberate the active tetra-carboxylate ligand EDTA that sequesters intracellular metal ions indiscriminately. For example, it can be used for sequestering cytosolic Ca²⁺ for investigations of the role of cytosolic calcium ion, or it can be used to sequester heavy metal contaminants or to inhibit metalloenzymes and metalloproteases that require divalent cations for activity.