

Medetomidine HRP Conjugate

Catalog Number: 50657

Unit Size: 1 mg

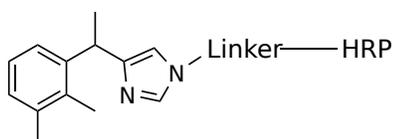
Product Details

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

Chemical Properties

Appearance	Solid
Molecular Weight	N/A
Soluble In	DMSO

Chemical Structure



Spectral Properties

Excitation Wavelength	N/A
Emission Wavelength	N/A

Applications

Medetomidine HRP Conjugate is a horseradish peroxidase-labeled derivative of medetomidine, a potent and selective α_2 -adrenergic receptor agonist widely utilized in veterinary medicine and neuroscience research. This conjugate is specifically designed for use in competitive enzyme-linked immunosorbent assays (ELISAs) and related immunoassay platforms to facilitate the sensitive and quantitative detection of medetomidine in biological matrices such as plasma, serum, or tissue extracts. The medetomidine moiety is covalently linked to horseradish peroxidase via optimized conjugation chemistry to preserve both the antigenic recognition by anti-medetomidine antibodies and the enzymatic activity of HRP. In competitive assay formats, the HRP-conjugated medetomidine competes with free analyte for binding to a limited amount of immobilized antibody, allowing for inverse correlation between signal intensity and analyte concentration. The conjugate provides high signal-to-noise ratios and robust batch-to-batch consistency, making it well-suited for pharmacokinetic profiling, drug monitoring, and analytical applications requiring high specificity and reproducibility.