

Diazepam KLH Conjugate

Catalog Number: 50666

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

Diazepam KLH conjugate consists of diazepam covalently linked to keyhole limpet hemocyanin (KLH), a high-molecular-weight, immunogenic carrier protein commonly used for hapten immunogen preparation. The conjugation is performed via established coupling chemistries that preserve the structural integrity of the diazepam moiety while maximizing epitope availability for immune recognition. This conjugate is specifically designed for the generation of anti-diazepam polyclonal and monoclonal antibodies, as well as for use in the development of competitive immunoassays. Diazepam, a benzodiazepine that acts as a positive allosteric modulator of GABA_A receptors, is widely studied for its pharmacological effects, including anxiolytic, sedative, muscle relaxant, and anticonvulsant activities. The diazepam-KLH conjugate enables sensitive and specific detection of diazepam and related compounds in biological matrices. It is suitable for applications in pharmacokinetic studies, forensic toxicology, therapeutic drug monitoring, and the development of diagnostic assays.