Product Data Sheet



GAD1/GAD67 Protein, Human (sf9, His)

Cat. No.: HY-P75180

Synonyms: Glutamate decarboxylase 1; GAD-67; GAD1; GAD

Species:

Sf9 insect cells Source: Q99259 (M1-L594) Accession:

Gene ID: 2571

Molecular Weight: Approximately 64 kDa

PROPERTIES	
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of 20 mM Tris, 500 mM NaCl, 10% Glycerol, pH 8.5. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu g/mL$ in ddH $_2$ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

Glutamate Decarboxylase 1 (GAD1), also known as GAD67, is an enzyme that plays a pivotal role in neurotransmission by catalyzing the synthesis of the inhibitory neurotransmitter gamma-aminobutyric acid (GABA). GAD1 utilizes pyridoxal 5'phosphate as a cofactor in the decarboxylation of glutamate to form GABA, a crucial neurotransmitter that regulates neuronal excitability in the central nervous system. The balanced production of GABA by GAD1 is essential for maintaining the inhibitory-excitatory balance in neural circuits and is implicated in various physiological and pathological conditions of the nervous system.

Caution: Product has not been fully validated for medical applications. For research use only.

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