

## GAPDH Protein, Mouse, Recombinant (His)

### General Information

Synonyms:	Gapd;glyceraldehyde-3-phosphate dehydrogenase
Protein Construction:	A DNA sequence encoding the mouse GAPDH (P16858) (Met1-Glu333) was expressed with a polyhistidine tag at the N-terminus. Predicted N terminal: His
Species:	Mouse
Expression Host:	E. coli
Accession:	P16858
Molecular Weight:	37.9 kDa (predicted); 38 kDa (reducing condition, due to glycosylation)

### QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 85 % as determined by SDS-PAGE
Endotoxin:	Please contact us for more information.
Formulation:	Lyophilized from a solution filtered through a 0.22 $\mu$ m filter, containing 50 mM Tris, 200 mM Arg, 10% gLycerol. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

### Preparation and Storage

Reconstitution:	Reconstituted with 50 mM Tris, 200 mM Arg to 0.63 mg/mL. Reconstitution conditions may vary depending on the lot.
Stability & Storage:	It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots. <small>Actual storage temperature shall be subject to the COA.</small>

### Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

Glyceraldehyde 3-phosphate dehydrogenase (GAPDH or G3PDH) is an enzyme of about 37kDa that is considered as a cellular enzyme involved in glycolysis. It catalyzes the sixth step of glycolysis. Glyceraldehyde-3-phosphate dehydrogenase (GAPDH) is a pleiotropic enzyme that is overexpressed in apoptosis and in several human chronic pathologies. Its role as a mediator for cell death has also been highlighted. A recent report suggests that GAPDH may be genetically associated with late-onset of Alzheimer's disease. Besides, deprenyl, which has originally been

used as a monoamine oxidase inhibitor for Parkinson's disease, binds to GAPDH and displays neuroprotective actions.

### Reference

Hara MR, et al. (2006) Neuroprotection by pharmacologic blockade of the GAPDH death cascade. PNA. 103 (10): 3887-9.

Hara MR, et al. (2006) GAPDH as a sensor of NO stress. Biochimica et Biophysica Acta (BBA) - Molecular Basis of Disease. 1762 (5): 502-9.

Tarze A, et al. (2007) GAPDH, a novel regulator of the pro-apoptotic mitochondrial membrane permeabilization GAPDH and apoptosis. Oncogene. 26: 2606-20.

Yi MK, et al. (2000) Functional Significance of the Interaction of Hepatitis A Virus RNA with Glyceraldehyde 3-Phosphate Dehydrogenase (GAPDH): Opposing Effects of GAPDH and Polypyrimidine Tract Binding Protein on Internal Ribosome Entry Site Function. Journal of Virology. 74 (14) : 6459-68.

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