

## 32-6755: GAPDH Mouse, Active

**Application :** Functional Assay

**Alternative Name :** Glyceraldehyde-3-phosphate dehydrogenase, GAPDH, Peptidyl-cysteine S-nitrosylase GAPDH, Gapdh, Gapd, Glyceraldehyde-3-phosphate dehydrogenase isoform 2, G3PD, GAPD, HEL-S-162eP.

### Description

Source: E.coli.

Sterile Filtered colorless solution.

GAPDH is a catalytic enzyme normally known to play a role in glycolysis. GAPDH exists as a tetramer composed of 36-kDa subunits and has a range of intracellular functions. GAPDH catalyzes the reversible reduction of 1,3-bisphosphoglycerate to glyceraldehyde 3-phosphophate in the presence of NADPH. Besides functioning as a glycolytic enzyme in cytoplasm, GAPDH has function in intracellular processes such as membrane fusion, microtubule bundling, phosphotransferase activity, nuclear RNA export, DNA replication and DNA repair. GAPDH catalyzes a vital energy-yielding step in carbohydrate metabolism, the reversible oxidative phosphorylation of glyceraldehyde-3-phosphate in the presence of inorganic phosphate and nicotinamide adenine dinucleotide (NAD). The enzyme exists as a tetramer of identical chains.

GAPDH Mouse Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 356 amino acids (1-333a.a.) and having a molecular mass of 38.2kDa. GAPDH is fused to a 23 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

### Product Info

**Amount :** 2 µg / 10 µg

**Purification :** Greater than 95% as determined by SDS-PAGE.

**Content :** GAPDH protein solution (0.25mg/ml) containing Phosphate buffered saline (pH7.4), 20% glycerol and 1mM DTT.

**Storage condition :** Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

**Amino Acid :** MGSSHHHHH SSGLVPRGSH MGSMVKGVN GFGRIGRLVT RAAICSGKVE IVAINDPFID LNYMVYMFQY DSTHGKFNGT VKAENGKLV NGKPITIFQE RDPTNIKWGE AGAEYVEST GVFTTMEKAG AHLKGGAKRV IISAPSADAP MFVMGVNHEK YDNSLKIVSN ASCTTNCLAP LAKVIHDNFG IVEGLMTTVH AITATQKTVD GPSGKLWRDG RGAAQNIIPA STGAAKAVGK VIPELNGKLT GMAFRVPTPN VSVVDLTCRL EKPAKYDDIK KVVQASEGP LKGILGYTED QVVSDFNSN SHSSTFDAGA GIALNDNFVK LISWYDNEYG YSNRVVDLMA YMASKE.

### Application Note

Specific activity is > 40 units/mg, and is defined as the amount of enzyme that convert 1.0 umole of glyceraldehyde-3-phosphate to 1,3-Bisphosphoglycerate per minute at pH 8.5 at 37C.