

## 32-6753: GAPDH Human, Active

**Application :** Functional Assay

**Alternative Name :** G3PD, GAPD, MGC88685, GAPDH, Glyceraldehyde-3-Phosphate Dehydrogenase.

### Description

Source: Escherichia 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 Human Recombinant produced in E. coli is a single polypeptide chain containing 335 amino acids (1-335) and having a molecular mass of 36kDa. The GAPDH is purified by proprietary chromatographic techniques.

### Product Info

**Amount :** 2 µg / 10 µg

**Purification :** Greater than 95.0% as determined by SDS-PAGE.

**Content :** The GAPDH protein (1 mg/ml) contains 20mM Tris-HCl buffer pH-8, 1mM EDTA, 1mM DTT and 20% glycerol.

**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 :** MGKVKGVNG FGRIGRLVTR AAFNSGKVDI VAINDPFIDL NYMVYMFQYD STHGKFHGTV KAENGKLVIN GNPITIFQER DPSKIKWGDA GA EYVVESTG VFTTMEKAGA HLQGGAKRVI ISAPSADAPM FVMGVNHEKY DNSLKIISNA SCTTNCLAPL AKVIHDNFGI VEGLMTTVHA ITATQKTVDG PSGKLWRDGR GALQNIIPAS TGAAKAVGKV IPELNGKLTG MAFRVPTANV SVVDLTCRLE KPAKYDDIKK VVKQASEGPL KGILGYTEHQ VVSSDFNSDT HSSTFDAGAG IALNDHFVKL ISWYDNEFGY SNRVVDLMAH MASKE.

### Application Note

Specific activity is > 90 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.