

## Recombinant Human GAPDH

**CATALOG #:** 7602-20 20 µg  
7602-1000 1 mg

**LOT #:** \_\_\_\_\_

**SOURCE:** *E. coli*

**PURITY:** >95% by SDS-PAGE

**FORM:** Colorless solution

**FORMULATION:** 1 mg/ml solution containing 20 mM Tris pH-8, 1 mM EDTA, 1 mM DTT, and 20% glycerol.

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

### DESCRIPTION:

Glyceraldehyde-3-Phosphate Dehydrogenase (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. Recombinant human GAPDH produced in E.Coli is a single, non-glycosylated polypeptide chain containing 335 amino acids and having a molecular mass of 36 kDa. The GAPDH is purified by proprietary chromatographic techniques.

### AMINO ACID SEQUENCE:

MGKVKGVNG FGRIGRLVTR AAFNSGKVDI VAINDPFIDL NYMVMFQYD STHGKFGHTV  
KAENGLVIN GNPITIFQER DPSKIKWGDA GAEYVVESTG VFTTMEKAGA HLQGGAKRVI  
ISAPSADAPM FVMGVNHEKY DNSLKIISNA SCTTNCLAPL AKVIHDNFGI VEGMLTTVHA  
ITATQKTVDG PSGKLWRDGR GALQNIIPAS TGAAKAVGKV IPELNGKLTG MAFRVPTANV  
SVVDLTCRLE KPAKYDDIKK VVKQASEGPL KGILGYTEHQ VVSSDFNSDT HSSTFDAGAG  
IALNDHFVKL ISWYDNEFGY SNRVVDLMAH MASKE

**FOR RESEARCH USE ONLY. Not to be used on humans**

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- Apoptosis siRNA Vectors

#### Cell Fractionation System

- Mitochondria/Cytosol Fractionation Kit
- Nuclear/Cytosol Fractionation Kit
- Membrane Protein Extraction Kit
- Cytosol/Particulate Rapid Separation Kit
- Mammalian Cell Extraction Kit
- FractionPREP Fractionation System

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