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California Bioscience

Product Datasheet

Product Name	Glyceraldehyde-3-Phosphate Dehydrogenase Human Recombinant
Cata No	CB501367
Source	*Escherichia Coli.*
Synonyms	G3PD, GAPD, MGC88685, GAPDH, Glyceraldehyde-3-Phosphate Dehydrogenase.

Description
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, non-glycosylated polypeptide chain containing 335 amino acids and having a molecular mass of 36 kDa.
The GAPDH is purified by proprietary chromatographic techniques.

Physical Appearance
Sterile filtered colorless solution.

Purity
Greater than 95.0% as determined by SDS-PAGE.

Formulation
The GAPDH protein (1 mg/ml) contains 20mM Tris pH-8, 1mM EDTA, 1mM DTT, and 20% glycerol.

Stability
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.

Sequence
MGKVKVGVNG FGRIGRLVTR AAFNSGKVDI VAINDPFIDL NYMVYMFQYD STHGKFHGTV KAENGKLVIN GNPITIFQER DPSKIKWGDA GAEYVVESTG VFTTMEKAGA HLQGGAKRVI ISAPSADAPM FVMGVNHEKY DNSLKIISNA SCTTNCLAPL AKVIHDNFGI VEGLMTTVHA ITATQKTVDG PSGKLWRDGR GALQNIIPAS TGAAKAVGKV IPELNGKLTG MAFRVPTANV SVVDLTCRLE KPAKYDDIKK VVKQASEGPL KGILGYTEHQ VVSSDFNSDT HSSTFDAGAG IALNDHFVKL ISWYDNEFGY SNRVVDLMAH MASKE

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