Recombinant mouse UDP-glucose dehydrogenase/UGDH protein

Catalog Number: ATGP3725

PRODUCT INFORMATION

Expression system
E.coli

Domain
1-493aa

UniProt No.
O70475

NCBI Accession No.
NP_033492

Alternative Names
UDP-glucose 6-dehydrogenase, UDP-Glc dehydrogenase, UDP-GlcDH, UDPGDH

PRODUCT SPECIFICATION

Molecular Weight
57.2 kDa (516aa) confirmed by MALDI-TOF

Concentration
0.5mg/ml (determined by absorbance at 280nm)

Formulation
Liquid in. 20mM MES buffer (pH 5.0) containing 20% glycerol, 150mM NaCl, 1mM EDTA

Purity
> 90% by SDS-PAGE

Endotoxin level

Biological Activity
Specific activity is > 2,500pmol/min/ug, and is defined as the amount of enzyme that convert 1.0pmole of UDP-glucose to UDP-glucuronate per minute at pH 8.7 at 37C

Tag
His-Tag

Application
SDS-PAGE, Enzyme Activity

Storage Condition
Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description
Ugdh, also known as UDP-glucose 6-dehydrohenase, is a member of the UDP-glucose/GDP-mannose

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dehydrogenase family and is a ubiquitously expressed protein most abundant in the liver. This protein converts UDP-glucose to UDP-glucuronate and thereby participates in the biosynthesis of glycosaminoglycans such as hyaluronan, chondroitin sulfate, and heparan sulfate. These glycosylated compounds are common components of the extracellular matrix and likely play roles in signal transduction, cell migration, and cancer growth and metastasis. Recombinant mouse Ugdh, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

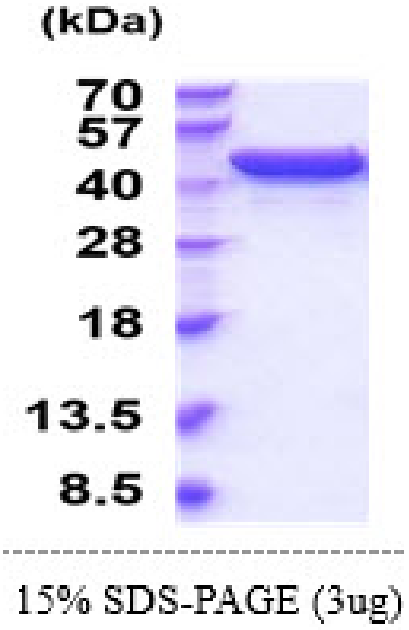
MGSSHHHHHH SSGLVPRGSH MGSMVEIKKI CCIGAGYVGG PTCSVIAHMC PEIRVTVVDV NEARINAWNS PTLPIYEPGL KEVVESCRGK NLFFSTNIDD AIREADLVFI SVNTPTKTYG MGKGRAADLK YIEACARRIV QNSNGYKIVT EKSTVPVRAA ESIRRIFDAN TKPNLNLQVL SNPEFLAEGT AIKDLKNPDR VLIGGDETPE GQKAVRALCA VYEHWVPKEK ILTTNTWSSE LSKLAANAFL AQRISSINSI SALCEATGAD VEEVATAIGM DQRIGNKFLK ASVGFGGSCF QKDVLNLVYL CEALNLPEVA RYWQQVIDMN DYQRRRFASR IIDSLFNTVT DKKIAILGFA FKKDTGDTRE SSSIYISKYL MDEGAHLHIY DPKVPREQIV VDLSHPGVSA DDQVSRLVTI SKDPYEACDG AHALVICTEW DMFKELDYER IHKKMLKPAF IFDGRRVLDG LHSELQTIGF QIETIGKKVS SKRIPYTPGE IPKFSLQDPP NKKPKV

General References

Bontemps Y., et al. (2003) J Biol Chem. 278(24):21566-75.
Vatsyayan J., et al. (2006) Biosci Biotechnol Biochem. 70(2):401-10.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.