Recombinant mouse Asparagine Synthetase/ASNS protein

Catalog Number: ATGP3908

PRODUCT INFORMATION

Expression system
Baculovirus

Domain
1-561aa

UniProt No.
Q61024

NCBI Accession No.
NP_036185

Alternative Names
Asns, Asparagine synthetase, Glutamine-dependent asparagine synthetase

PRODUCT SPECIFICATION

Molecular Weight
65.1 kDa (567aa)

Concentration
0.25mg/ml (determined by absorbance at 280nm)

Formulation
Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 40% glycerol

Purity
> 95% by SDS-PAGE

Endotoxin level
< 1 EU per 1ug of protein (determined by LAL method)

Tag
His-Tag

Application
SDS-PAGE

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
ASNS, also known as Asparagine synthetase, is a one of cytoplasmic enzyme that generates asparagine from aspartate. It mainly distributes in mammalian organs, but basal expression is low in tissues other than the exocrine pancreas. This protein plays a role of cell growth, and its mRNA content is linked to changes in the cell cycle. Its mRNA is upregulated in response to the asparagine depletion, some of the toxic effects of

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themedication on normal cell activity. Above average presence of asparagine synthetase in certain leukemia strains has been linked to be a significant contributing factor of chemotherapy resistance, particularly to thechemotherapy drug, L-asparaginase. Also, it functions as potential biomarker for ovarian cancer, potential role in solid tumor metastasis. Recombinant mouse ASNS, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

Amino acid Sequence

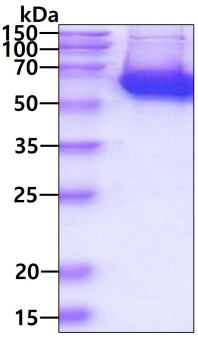
MCGIWALFGS DDCLSVQCLS AMKIAHRGPD AFRFENVNGY TNCCFGFHRL AVVDPLFGMQPIRVRKYPYL WLCYNGEIYN HKALQQRFEF EYQTNVDGEI ILHLYDKGGI EKTICMLDGVFAFILLDTAN KKVFLGRDTY GVRPLFKAMT EDGFLAVCSE AKGLVSLKHS TTPFLKVEPFLPGHYEVLDL KPNGKVASVE MVKYHHCTDE PLHAIYDSVE KLFPGFDLET VKNNLRILFDNAIKKRLMTD RRIGCLLSGG LDSSLVAASL LKQLKEAQVQ YPLQTFAIGM EDSPDLLAARKVANYIGSEH HEVLFNSEEG IQALDEVIFS LETYDITTVR ASVGMYLISK YIRKNTDSVVIFSGEGSDEL TQGYIYFHKA PSPEKAEEES ERLLKELYLF DVLRADRTTA AHGLELRVPFLDHRFSSYYL SLPPDMRIPK NGIEKHLLRE TFEDCNLLPK EILWRPKEAF SDGITSVKNSWFKILQDYVE HQVDDEMMSA SQKFPFNTP KTKEGYFYRQ IFERHYPGRA DWLTHYWMPK WINATDPSAR TLTHYKSAAK A<HHHHHH>

General References

Chan WK., et al. (2014) Blood. 123:3596-3606.
Khater F., et al. (2017) Blood. 129:1729-1732.

DATA

SDS-PAGE



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