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# Recombinant mouse Asparagine Synthetase/ASNS protein

Catalog Number: ATGP3908

#### PRODUCT INFORMATION

### **Expression system**

Baculovirus

#### **Domain**

1-561aa

#### UniProt No.

061024

#### **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**

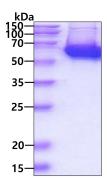
MCGIWALFGS DDCLSVQCLS AMKIAHRGPD AFRFENVNGY TNCCFGFHRL AVVDPLFGMQPIRVRKYPYL WLCYNGEIYN HKALQQRFEF EYQTNVDGEI ILHLYDKGGI EKTICMLDGVFAFILLDTAN KKVFLGRDTY GVRPLFKAMT EDGFLAVCSE AKGLVSLKHS TTPFLKVEPFLPGHYEVLDL KPNGKVASVE MVKYHHCTDE PLHAIYDSVE KLFPGFDLET VKNNLRILFDNAIKKRLMTD RRIGCLLSGG LDSSLVAASL LKQLKEAQVQ 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 and visualized by coomassie blue stain.

