PRODUCT INFORMATION

Expression system E.coli

Domain 1-277aa

UniProt No. P29218

NCBI Accession No. NP_005527

Alternative Names Inositol monophosphatase 1, IMPA, IMP, IMPase 1, Inositol monophosphatase 1

PRODUCT SPECIFICATION

Molecular Weight 32.3 kDa (297aa) confirmed by MALDI-TOF

Concentration 1mg/ml (determined by Bradford assay)

Formulation Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol

Purity > 95% by SDS-PAGE

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

IMPA1 (inositol monophosphatase1) is responsible for the provision of inositol required for synthesis of phosphatidylinositol and polyphosphoinositides. It plays a key role in the phosphatidylinositol signaling pathway by catalyzing the hydrolysis of inositol monophosphates. This protein has been identified as the pharmacological target for lithium action in the brain. Recombinant human IMPA1 protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography.



Amino acid Sequence

<MGSSHHHHHH SSGLVPRGSH> MADPWQECMD YAVTLARQAG EVVCEAIKNE MNVMLKSSPV DLVTATDQKV EKMLISSIKE KYPSHSFIGE ESVAAGEKSI LTDNPTWIID PIDGTTNFVH RFPFVAVSIG FAVNKKIEFG VVYSCVEGKM YTARKGKGAF CNGQKLQVSQ QEDITKSLLV TELGSSRTPETVRMVLSNME KLFCIPVHGI RSVGTAAVNM CLVATGGADA YYEMGIHCWD VAGAGIIVTE AGGVLMDVTG GPFDLMSRRV IAANNRILAE RIAKEIQVIP LQRDDED

General References

Schapiro MB., et al. (2002) Neurobiol Aging. 23(3):389-96. Atack JR., et al. (1992) Proc Natl Acad Sci u S A. 89(21):10031-5.

DATA

SDS-PAGE



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