PRODUCT INFORMATION

Expression system E.coli

Domain 1-119aa

UniProt No. Q16864

NCBI Accession No. NP_004222

Alternative Names V-type proton ATPase subunit F, V-type proton ATPase subunit F, ATP6S14, VATF, Vma7

PRODUCT SPECIFICATION

Molecular Weight 15.8 kDa (142aa) confirmed by MALDI-TOF

Concentration 0.5mg/ml (determined by Bradford assay)

Formulation Liquid in. Phosphate-Buffered Saline (pH 7.4) containing, 50% glycerol, 1mM DTT

Purity > 90% 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

ATP6V1F is a component of vacuolar ATPase (V-ATPase), a multisubunit enzyme that mediates acidification of eukaryotic intracellular organelles. V-ATPase dependent organelle acidification is necessary for such intracellular processes as protein sorting, zymogen activation, receptor-mediated endocytosis, and synaptic vesicle proton gradient generation. V-ATPase is composed of a cytosolic V1 domain and a transmembrane V0 domain. The V1 domain consists of three A and three B subunits, two G subunits plus the C, D, E, F, and H subunits. The V1 domain contains the ATP catalytic site. The V0 domain consists of five different subunits: a, c, c', c', and d.



Additional isoforms of many of the V1 and V0 subunit proteins are encoded by multiple genes or alternatively spliced transcript variants. Recombinant human ATP6V1F, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

MGSSHHHHHH SSGLVPRGSH MGSMAGRGKL IAVIGDEDTV TGFLLGGIGE LNKNRHPNFL VVEKDTTINE IEDTFRQFLN RDDIGIILIN QYIAEMVRHA LDAHQQSIPA VLEIPSKEHP YDAAKDSILR RARGMFTAED LR

General References

Supino R., et al. (2009) Ann. N. Y. Acad. Sci. 1171, 606-616 Smith AN., et al. (2008) J. Bioenerg. Biomembr. 40 (4), 371-380

DATA



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

15% SDS-PAGE (3ug)