Recombinant human alpha-Smooth Muscle Actin/ACTA2 protein

Catalog Number: ATGP1719

PRODUCT INFORMATION

Expression system
E.coli

Domain
3-377aa

UniProt No.
P62736

NCBI Accession No.
NP_001604.1

Alternative Names
Aortic smooth muscle actin, Alpha-actin-2, Cell growth-inhibiting gene 46 protein, Actin, Aortic smooth muscle, Intermediate form, ACTSA, ACTVS, GIG46

PRODUCT SPECIFICATION

Molecular Weight
44.4 kDa (400aa) confirmed by MALDI-TOF

Concentration
1mg/ml (determined by Bradford assay)

Formulation
Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 0.15M NaCl, 10% glycerol

Purity
> 85% 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
ACTA2 belongs to the actin family of proteins, which are highly conserved proteins that play a role in cell motility, structure and integrity. Alpha, beta and gamma actin isoforms have been identified, with alpha actins being a major constituent of the contractile apparatus, while beta and gamma actins are involved in the regulation of cell motility. This actin is an alpha actin that is found in skeletal muscle. Defects in this gene cause aortic aneurysm familial thoracic type 6. Multiple alternatively spliced variants, encoding the same protein, have

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been identified. Recombinant human ACTA2 protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

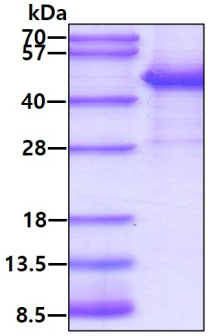
<MGSSHHHHHH SSGLVPRGSH MGSHM>EEEDS TALVCDNGSG LCKAGFAGDD APRAVFPSIV GRPRHQGVMV GMGQKDSYVG DEAQSKRGIL TLKYPIEHGI ITNWDDMEKI WHHSFYNELR VAPEEHPTLL TEAPLNPKAN REKMTQIMFE TFNVPAMYVA IQAVLSLYAS GRTTGIVLDS GDGVTHNVPI YEGYALPHAI MRLDLAGRDL TDYLMKILTE RGYSFVTTAE REIVRDIKEK LCYVALDFEN EMATAASSSS LEKSYELPDG QVITIGNERF RCPETLFQPS FIGMESAGIH ETTYNSIMKC DIDIRKDLYA NNVLSGGTTM YPGIADRMQK EITALAPSTM KIKIIAPPER KYSVWIGGSI LASLSTFQQM WISKQEYDEA GPSIVHRKCF

General References

Sakai,H., et al. (2012) Hum. Genet. 131 (4), 591-599
Regalado,E., et al. (2011) Am. J. Med. Genet. A 155A (9), 2125-2130.

DATA

SDS-PAGE



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