

P81410Hu01
Twinfilin 1 (TWF1)
Organism: Homo sapiens (Human)
Instruction manual

FOR IN VITRO USE AND RESEARCH USE ONLY
NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES

1th Edition (Revised in February, 2012)

[DESCRIPTION]

Protein Names: Twinfilin 1

Gene Names: TWF1

Size: 100µg

Source: Recombinant

Expression Host: *E.coli*

Function: Actin-binding protein involved in motile and morphological processes. Inhibits actin polymerization, likely by sequestering G-actin. By capping the barbed ends of filaments, it also regulates motility. Seems to play an important role in clathrin-mediated endocytosis and distribution of endocytic organelles

Subcellular Location: Cytoplasm. Cytoplasm > cytoskeleton

Tissue Specificity: Expressed at high levels in the colon, testis, ovary, prostate and lung. Expressed at lower levels in the brain, bladder and heart. Not detected in liver.

[PROPERTIES]

Residues: Met1~Ser252 (Accession # Q12792), with a N-terminal His-tag.

Grade & Purity: >97%, 30.26 kDa as determined by SDS-PAGE reducing conditions.

Form & Buffer: Supplied as lyophilized form in PBS, pH 7.4.

Endotoxin Level: <1.0 EU per 1µg(determined by the LAL method).

Applications: SDS-PAGE; WB; ELISA;IP.

(May be suitable for use in other assays to be determined by the end user.)

Predicted Molecular Mass: 30.26 kDa

[PREPARATION]

Reconstitute in PBS.



[STORAGE AND STABILITY]

Storage: Store at 4°C for short term storage (1-2 weeks). Aliquot and store at -20°C or -80°C for long term storage. Avoid repeated freeze/thaw cycles.

Valid period: 12 months stored at -80°C.

[BACKGROUND]

The target protein is fused with a His-tag and its sequence is listed below. The first Met is an initiator amino acid. Moreover, Gly and Ser are added to improve the flexibility of N-terminus at both ends of the His-tag, which will increase the chelating ability of the tag to Ni-Sepharose during purification.

MGHHHHHSGS-MSHQTGIQAS EDVKEIFARA RNGKYRLLKI SIENEQLVIG SYSQPSDSWD KDYDSFVLPL
LEDKQPCYIL FRLDSQNAQG YEWIFIAWSP DSHVVRQKML YAATRATLKK EFGGGHIKDE VFGTVKEDVS
LHGYYKYLSS QSSAPLTAA EEELRQIKIN EVQTDVGVDT KHQTLQGVAF PISREAFQAL EKLNNRQLNY
VQLEIDIKNE IILANTTNT ELKDLPKRIP KDSARYHFFL YKHSHEGDYL ES

[REFERENCES]

1. Beeler JF, et al.(1994) Mol Cell Biol 14 (2): 982-988.
2. Rush J., et al. (2005) Nat. Biotechnol. 23:94-101.
3. Yu L.-R., et al. (2007) J. Proteome Res. 6:4150-4162.
4. Palmgren S, et al.(2002) J. Cell. Sci. 115 (Pt 5): 881-886.
5. Vartiainen MK, et al.(2003) J. Biol. Chem. 278 (36): 34347-34355.
6. Moseley,J.B. et al. (2006) J Cell Sci. 119 (Pt 8):1547-1557.
7. Hassel S, et al. (2004) Proteomics 4 (5): 1346-1358.
8. Beeler J.F., et al. (1994) Mol. Cell. Biol. 14:982-988.

