

ELP6 (N-12): sc-100185

BACKGROUND

In *Saccharomyces cerevisiae*, the hyperphosphorylated form of RNA polymerase II (RNAP II) mediates transcription elongation, and associates with the elongator complex, which contains six subunits. The elongator complex can be separated into two subcomplexes; one consisting of Elp1, Elp2 and Elp3, and the other consisting of Elp4, Elp5 and Elp6. The elongator complex acetylates both core histones and nucleosomal substrates, and directs its activity specifically towards the N-terminal tails of Histone H3 and Histone H4. An analogous complex exists in mammals and contains a variety of proteins that are functional homologs of their yeast counterparts. ELP6 (elongation protein 6), also known as C3orf75 or TMEM103, is a 266 amino acid protein and is a component of the elongator complex. Existing as two alternatively spliced isoforms, ELP6 is involved in transcriptional regulation and may play a role in cell migration.

REFERENCES

1. Winkler, G.S., et al. 2001. RNA polymerase II elongator holoenzyme is composed of two discrete subcomplexes. *J. Biol. Chem.* 276: 32743-32749.
2. Kim, J.H., et al. 2002. Human Elongator facilitates RNA polymerase II transcription through chromatin. *Proc. Natl. Acad. Sci. USA* 99: 1241-1246.
3. Li, F., et al. 2004. The Elp4 subunit of human Elongator complex partially complements the growth defects of yeast ELP4 deletion strain. *Yi Chuan Xue Bao* 31: 668-674.
4. Nelissen, H., et al. 2005. The elongata mutants identify a functional Elongator complex in plants with a role in cell proliferation during organ growth. *Proc. Natl. Acad. Sci. USA* 102: 7754-7759.
5. Srokowski, E.M. and Woodhouse, K.A. 2008. Development and characterization of novel cross-linked bio-elastomeric materials. *J. Biomater. Sci.* 19: 785-799.
6. Strug, L.J., et al. 2009. Centrotemporal sharp wave EEG trait in rolandic epilepsy maps to Elongator Protein Complex 4 (ELP4). *Eur. J. Hum. Genet.* 17: 1171-1181.
7. Close, P., et al. 2012. DERP6 (ELP5) and C3ORF75 (ELP6) regulate tumorigenicity and migration of melanoma cells as subunits of Elongator. *J. Biol. Chem.* 287: 32535-32545.

CHROMOSOMAL LOCATION

Genetic locus: ELP6 (human) mapping to 3p21.31; Elp6 (mouse) mapping to 9 F2.

SOURCE

ELP6 (N-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of ELP6 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-100185 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ELP6 (N-12) is recommended for detection of ELP6 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other ELP family members.

ELP6 (N-12) is also recommended for detection of ELP6 in additional species, including canine and bovine.

Suitable for use as control antibody for ELP6 siRNA (h): sc-77950, ELP6 siRNA (m): sc-154341, ELP6 shRNA Plasmid (h): sc-77950-SH, ELP6 shRNA Plasmid (m): sc-154341-SH, ELP6 shRNA (h) Lentiviral Particles: sc-77950-V and ELP6 shRNA (m) Lentiviral Particles: sc-154341-V.

Molecular Weight of ELP6 isoform 1: 30 kDa.

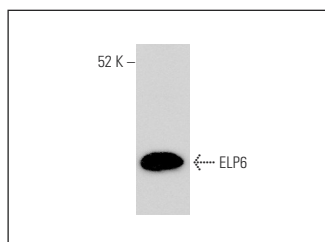
Molecular Weight of ELP6 isoform 2: 28 kDa.

Positive Controls: PC-12 cell lysate: sc-2250.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



ELP6 (N-12): sc-100185. Western blot analysis of ELP6 expression in PC-12 whole cell lysate.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.