10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

ELP3 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1112a

Product Information

Application	WB, E
Primary Accession	Q9H9T3
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	62259
Antigen Region	9-44

Additional Information

Gene ID	55140
Other Names	Elongator complex protein 3, hELP3, ELP3
Target/Specificity	This ELP3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 9-44 amino acids from the N-terminal region of human ELP3.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	ELP3 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ELP3 {ECO:0000303|PubMed:15902492, ECO:0000312|HGNC:HGNC:20696}
Function	Catalytic tRNA acetyltransferase subunit of the elongator complex which is required for multiple tRNA modifications, including mcm5U (5-methoxycarbonylmethyl uridine), mcm5s2U (5-methoxycarbonylmethyl-2-thiouridine), and ncm5U (5-carbamoylmethyl uridine) (PubMed:29415125). In the elongator complex, acts as a tRNA uridine(34) acetyltransferase by mediating formation of carboxymethyluridine

	in the wobble base at position 34 in tRNAs (By similarity). May also act as a protein lysine acetyltransferase by mediating acetylation of target proteins; such activity is however unclear in vivo and recent evidences suggest that ELP3 primarily acts as a tRNA acetyltransferase (PubMed:29415125). Involved in neurogenesis: regulates the migration and branching of projection neurons in the developing cerebral cortex, through a process depending on alpha-tubulin acetylation (PubMed:19185337). Required for acetylation of GJA1 in the developing cerebral cortex (By similarity).
Cellular Location	Cytoplasm. Nucleus [Isoform 2]: Cytoplasm. Nucleus
Tissue Location	Expressed in the cerebellum and spinal motor neurons.

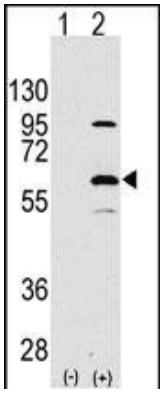
Background

Elongator complex protein 3 (ELP3) is a catalytic histone acetyltransferase subunit of the RNA polymerase II elongator complex, which is a component of the RNA polymerase II (Pol II) holoenzyme and is involved in transcriptional elongation. Elongator may play a role in chromatin remodeling and is involved in acetylation of histones H3 and probably H4. It may also have a methyltransferase activity.

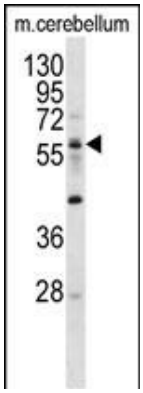
References

Han,Q., Acta Biochim. Biophys. Sin. (Shanghai) 39 (6), 453-461 (2007)
Kim,J.H., Proc. Natl. Acad. Sci. U.S.A. 99 (3), 1241-1246 (2002)
Ninomiya,Y., J. Biochem. 118 (2), 380-389 (1995)

Images



Western blot analysis of ELP3(arrow) using rabbit polyclonal ELP3 Antibody (N-term) (Cat.#AP1112a). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the ELP3 gene (Lane 2) (Origene Technologies).



ELP3 Antibody (N-term) (Cat.#AP1112a) western blot analysis in mouse cerebellum tissue lysates (35ug/lane).This demonstrates the ELP3 antibody detected the ELP3 protein (arrow).

Citations

- ELP3 localises to mitochondria and actin-rich domains at edges of HeLa cells.