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IKAP Antibody

Catalog # ASC10122

Product Information

Application	WB, IF, ICC, E
Primary Accession	O95163
Other Accession	AAC64258, 3757822
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	150254
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	IKAP antibody can be used for detection of IKAP by Western blot at 0.5 to 1 g/mL. Antibody can also be used for immunocytochemistry starting at 1 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	8518
Other Names	IKAP Antibody: FD, DYS, ELP1, IKAP, IKI3, TOT1, Elongator complex protein 1, IkappaB kinase complex-associated protein, inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase complex-associated protein
Target/Specificity	IKBKAP; At least two isoforms of IKAP are known two exist, this antibody will detect both isoforms.
Reconstitution & Storage	IKAP antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	IKAP Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ELP1 (HGNC:5959)
Function	Component 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:29332244). The elongator complex catalyzes the formation of carboxymethyluridine in the wobble base at position 34 in tRNAs (PubMed:29332244). Regulates the migration and branching of projection neurons in the developing cerebral cortex, through a

process depending on alpha-tubulin acetylation (By similarity). ELP1 binds to tRNA, mediating interaction of the elongator complex with tRNA (By similarity). May act as a scaffold protein that assembles active IKK-MAP3K14 complexes (IKKA, IKKB and MAP3K14/NIK) (PubMed:9751059).

Cellular Location Cytoplasm. Nucleus

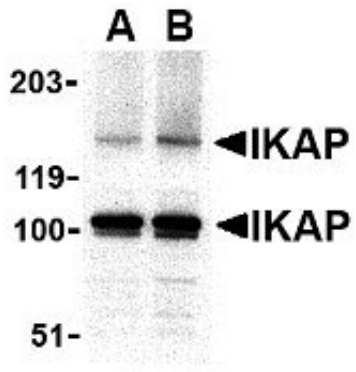
Background

IKAP Antibody: IKAP was initially identified as a scaffold protein of the IκB kinase complex that could bind to IKKα, IKKβ, NF-κB, and the NF-κB-inducing kinase (NIK), although later evidence has cast doubt on this. More recent reports show that mutations in IKAP such as a frameshift leading to a truncated protein or a missense mutation that leads to defective phosphorylation are responsible for the autosomal recessive genetic disease familial dysautonomia (FD). Reports indicating that it forms part of the RNA polymerase II transcription elongation complex suggest that this disease may be due to compromised transcription elongation. More recently, it was shown that IKAP associates with c-Jun N-terminal kinase (JNK) and could specifically enhance JNK activation induced by the upstream JNK activators MEKK1 and ASK1, indicating another possible cause for FD.

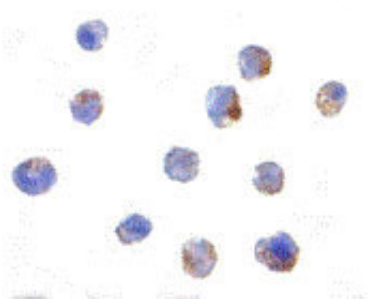
References

Cohen L, Henzel WJ, and Baeuerle PA. IKAP is a scaffold protein of the IkB kinase complex. Nature 1998; 395:292-6.
Krappmann D, Hatada EN, Tegethoff S, et al. The I kappa B kinase (IKK) complex is tripartite and contains IKK gamma but not IKAP as a regular component. J. Biol. Chem. 2000; 275:29779-87.
Anderson SL, Coli R, Daly IW, et al. Familial dysautonomia is caused by mutations of the IKAP gene. Am. J. Hum. Genet. 2001; 68:753-8.
Hawkes NA, Otero G, Winkler GS, et al. Purification and characterization of the human elongator complex. J. Biol. Chem. 2002; 277:3047-52.

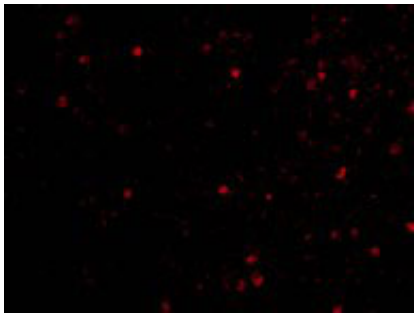
Images



Western blot analysis of IKAP in A-20 cell lysate with IKAP antibody at in (A) 0.5, and (B) 1 µg/mL.



Immunocytochemistry of IKAP in A-20 cells with IKAP antibody at 1 µg/mL.



Immunofluorescence of IKAP in A20 cells with IKAP antibody at 20 µg/mL.

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