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ENC-2 Antibody

Catalog # ASC11108

Product Information

Application	WB, IF, ICC, E
Primary Accession	Q9H0H3
Other Accession	AAV51405, 55418570
Reactivity	Human
Host	Chicken
Clonality	Polyclonal
Isotype	IgY
Calculated MW	65923
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	ENC-2 antibody can be used for detection of ENC-2 by Western blot at 1 g/mL. Antibody can also be used for immunocytochemistry starting at 5 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	64410
Other Names	Kelch-like protein 25, Ectoderm-neural cortex protein 2, ENC-2, KLHL25, ENC2
Target/Specificity	KLHL25;
Reconstitution & Storage	ENC-2 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	ENC-2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	KLHL25 {ECO:0000303|PubMed:22578813, ECO:0000312|HGNC:HGNC:25732}
Function	Substrate-specific adapter of a BCR (BTB-CUL3-RBX1) E3 ubiquitin ligase complex involved in various processes, such as translation homeostasis and lipid synthesis (PubMed:22578813, PubMed:27664236, PubMed:34491895). The BCR(KLHL25) ubiquitin ligase complex acts by mediating ubiquitination of hypophosphorylated EIF4EBP1 (4E-BP1): ubiquitination and subsequent degradation of hypophosphorylated EIF4EBP1 (4E-BP1) probably serves as a homeostatic mechanism to maintain translation and prevent eIF4E inhibition when eIF4E levels are low (PubMed:22578813). The BCR(KLHL25) complex does not target EIF4EBP1 (4E-BP1) when it is hyperphosphorylated or

associated with eIF4E (PubMed:22578813). The BCR(KLHL25) complex also acts as a regulator of lipid synthesis by mediating ubiquitination and degradation of ACLY, thereby inhibiting lipid synthesis (PubMed:27664236, PubMed:34491895). BCR(KLHL25)-mediated degradation of ACLY promotes fatty acid oxidation and is required for differentiation of inducible regulatory T (iTreg) cells (PubMed:34491895).

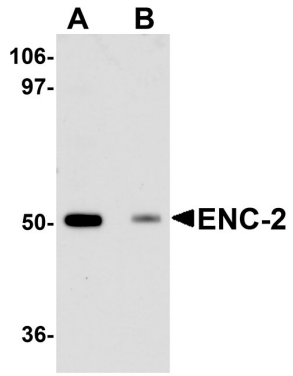
Background

ENC-2 Antibody: The ectoderm-neural cortex-2 (ENC-2) protein a member of the BTB/PDZ Kelch protein family displaying significant homology to ENC-1, an actin-binding protein involved in neural fate specification during embryogenesis and adipocyte maturation. The exact function of ENC-2 has yet to be determined, but it has been suggested to be involved in the differentiation of neuronal precursor cells into neurons and astrocytes.

References

Hernandez MC, Andres-Barquin PJ, Martinez S, et al. ENC-1: a novel mammalian kelch-related gene specifically expressed in the nervous system encodes an actin-binding protein. J. Neurosci.1997; 17:3038-51.
Zhao L, Gregoire F and Sul HS. Transient induction of ENC-1, a Kelch-related actin-binding protein, is required for adipocyte differentiation. J. Biol. Chem.2000; 275:16845-50.
Ahn JI, Kim SY, Ko MJ, et al. Analysis of gene expression in mouse spinal cord-derived neural precursor cells during neuronal differentiation. Gen. and Infor.2009; 7:85-96.

Images

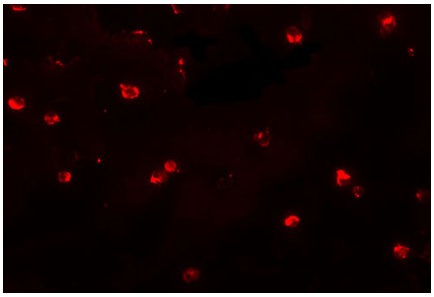


Western blot analysis of ENC-2 in Jurkat cell lysate with ENC-2 antibody at 1 µg/mL in (A) the absence and (B) the presence of blocking peptide.



Immunocytochemistry of ENC-2 in Jurkat cells with ENC-2 antibody at 5 µg/mL.

Immunofluorescence of ENC-2 in Jurkat cells with ENC-2 antibody at 20 µg/mL.



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