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

KLHL25 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP16430a

Product Information

Application	WB, E
Primary Accession	Q9H0H3
Other Accession	Q4KLM4, Q8R2P1, NP_071925.2
Reactivity	Human
Predicted	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB35874
Calculated MW	65923
Antigen Region	62-91

Additional Information

Gene ID	64410
Other Names	Kelch-like protein 25, Ectoderm-neural cortex protein 2, ENC-2, KLHL25, ENC2
Target/Specificity	This KLHL25 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 62-91 amino acids from the N-terminal region of human KLHL25.
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 purified through a protein A column, followed by peptide affinity purification.
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	KLHL25 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

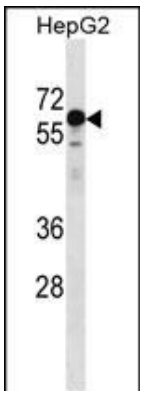
Name	KLHL25 {ECO:0000303|PubMed:22578813, ECO:0000312|HGNC:HGNC:25732}
Function	Substrate-specific adapter of a BCR (BTB-CUL3-RBX1) E3 ubiquitin ligase complex involved in various processes, such as translation homeostasis and

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).

References

Lunetta, K.L., et al. BMC Med. Genet. 8 SUPPL 1, S13 (2007) :
Simpson, J.C., et al. EMBO Rep. 1(3):287-292(2000)

Images



KLHL25 Antibody (N-term) (Cat. #AP16430a) western blot analysis in HepG2 cell line lysates (35ug/lane).This demonstrates the KLHL25 antibody detected the KLHL25 protein (arrow).