

**KLHL25 Antibody**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO1418a****Specification**

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**KLHL25 Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">O9H0H3</a>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2b
Calculated MW	65kDa KDa

**Description**

KLHL25 (ectoderm-neural cortex protein 2, ENC2) is a cytoplasmic protein that contains six Kelch regions and a single BTB (POZ) domain. KLHL25 is highly homologous to another Kelch-like protein, ENC1, and it is believed to operate in a manner similar to other Kelch-domain containing proteins. Kelch-domain repeat containing proteins often act as modifiers of Actin fibers. Expressed early in embryogenesis, ENC1 helps to mediate neuronal process formation. It also appears to have a role in neural crest cell differentiation. KLHL25 likely functions as a substrate specific adapter for protein ubiquitinating complexes. KLHL25 is expressed in most tissues with highest expression in brain and liver.

**Immunogen**

Purified recombinant fragment of human KLHL25 expressed in E. Coli. <br />

**Formulation**

Ascitic fluid containing 0.03% sodium azide. <br />

**KLHL25 Antibody - Additional Information**

**Gene ID** 64410

**Other Names**

Kelch-like protein 25, Ectoderm-neural cortex protein 2, ENC-2, KLHL25, ENC2

**Dilution**

WB~~1/500 - 1/2000

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

KLHL25 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**KLHL25 Antibody - 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:<a href="http://www.uniprot.org/citations/22578813" target="\_blank">22578813</a>, PubMed:<a href="http://www.uniprot.org/citations/27664236" target="\_blank">27664236</a>, PubMed:<a href="http://www.uniprot.org/citations/34491895" target="\_blank">34491895</a>). 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:<a href="http://www.uniprot.org/citations/22578813" target="\_blank">22578813</a>). The BCR(KLHL25) complex does not target EIF4EBP1 (4E-BP1) when it is hyperphosphorylated or associated with eIF4E (PubMed:<a href="http://www.uniprot.org/citations/22578813" target="\_blank">22578813</a>). The BCR(KLHL25) complex also acts as a regulator of lipid synthesis by mediating ubiquitination and degradation of ACLY, thereby inhibiting lipid synthesis (PubMed:<a href="http://www.uniprot.org/citations/27664236" target="\_blank">27664236</a>, PubMed:<a href="http://www.uniprot.org/citations/34491895" target="\_blank">34491895</a>). BCR(KLHL25)-mediated degradation of ACLY promotes fatty acid oxidation and is required for differentiation of inducible regulatory T (iTreg) cells (PubMed:<a href="http://www.uniprot.org/citations/34491895" target="\_blank">34491895</a>).

### KLHL25 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### KLHL25 Antibody - Images

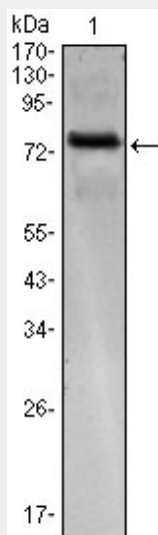


Figure 1: Western blot analysis using KLHL25 mAb against KLHL25(AA: 2-230)-hIgGFc transfected HEK293 cell.

#### **KLHL25 Antibody - References**

1. BMC Med Genet. 2007 Sep 19;8 Suppl 1:S13.
2. Genome Res. 2004 Oct;14(10B):2136-44.