

KLHL2 Protein, Human (His)

Cat. No.:	HY-P76470
Synonyms:	Kelch-like protein 2; Actin-binding protein Mayven; KLHL2
Species:	Human
Source:	E. coli
Accession:	O95198-1 (M1-P306)
Gene ID:	11275
Molecular Weight:	Approximately 35 kDa

PROPERTIES

AA Sequence	<pre> METPPLPPAC TKQGHQKPLD SKDDNTEKHC PVTVNPWHMK KAFKVMNELR SQNLLCDVTI VAEDMEISAH RVVLAACSPY FHAMFTGEMS ESRAKRVRIK EVDGWTLRML IDYVYTAIEIQ VTEENVQVLL PAAGLLQLQD VKKTCCEFLE SQLHPVNCLG IRAFADMHAC TDL LN KANTY AEQHFADVVL SEEFNLNGIE QVCSLISSDK LTISSEEKVF EAVIAVWNHD KDVRQEFMAR LMEHVRLPLL PREYLVQRVE EEALVKNSSA CKDYLI EAMK YHLLPTEQRI LMKSVRTRLR TPMNLP </pre>
Biological Activity	Measured by its binding ability in a functional ELISA. Immobilized Human KLHL2 at 2 µg/mL (100 µL/well) can bind Anti-KLHL2 antibody. The ED ₅₀ for this effect is 0.325 µg/mL.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 µm filtered solution of 50 mM Tris-HCL, 300 mM NaCl, pH 8.0.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	KLHL2 functions as a substrate-specific adapter within the BCR (BTB-CUL3-RBX1) E3 ubiquitin ligase complex, orchestrating
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the ubiquitination and subsequent proteasomal degradation of various target proteins, including NPTXR, WNK1, WNK3, and WNK4. This degradation is a crucial regulatory mechanism for maintaining cellular homeostasis. The BCR(KLHL2) complex, under the influence of KLHL2, specifically catalyzes the ubiquitination of NPTXR, emphasizing its role in targeted protein turnover. Additionally, KLHL2 is responsible for the degradative ubiquitination of WNK kinases (WNK1, WNK3, and WNK4), showcasing its involvement in regulating these key signaling molecules. Beyond its role in protein degradation, KLHL2 contributes to the reorganization of the actin cytoskeleton, impacting cellular processes such as the growth of projections in oligodendrocyte precursors. This multifaceted functionality highlights KLHL2 as a critical player in the intricate network of cellular regulation and protein modification.

Caution: Product has not been fully validated for medical applications. For research use only.

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