



Recombinant Human von Hippel-Lindau Protein Complex (VHL-ELOB-ELOC)

Catalog #MB7718

Product Description

The von Hippel–Lindau (VHL) E3 ubiquitin ligase complex is one of the most extensively studied E3 ligase systems in targeted protein degradation and a major component utilized in PROTAC (proteolysis-targeting chimera) technology. Under normoxic conditions, the VHL complex selectively recognizes hydroxylated hypoxia-inducible factor alpha (HIF- α) through the VHL substrate recognition protein, leading to ubiquitination and subsequent proteasomal degradation of HIF- α . By exploiting this natural ubiquitination pathway, VHL-binding ligands have become one of the most widely used E3 ligase recruiting elements in PROTAC design for targeted degradation of disease-associated proteins.

Elongin B (ELOB) and Elongin C (ELOC) form a stable heterodimer that functions as an essential adaptor module within the VHL E3 ubiquitin ligase complex. The ELOB/ELOC heterodimer interacts with the BC-box motif of VHL and connects the substrate recognition component to the Cullin-2/RBX1 ubiquitin ligase machinery, enabling assembly and activation of the functional E3 ligase complex. Because of its critical role in VHL complex formation and activity, the ELOB/ELOC complex is an important research reagent for studying VHL-mediated ubiquitination mechanisms and developing next-generation PROTAC degraders.

The recombinant human von Hippel–Lindau (VHL) protein complex is a heterotrimeric protein complex composed of three components: VHL (residues 54–213), Elongin B (ELOB; residues 1–118), and Elongin C (ELOC; residues 17–112). This recombinant complex represents the functional substrate recognition module of the VHL E3 ubiquitin ligase system and is widely used for studying VHL-mediated ubiquitination and PROTAC-based targeted protein degradation.

Specifications

Synonyms:	VHL-ELOB-ELOC Complex; VHL E3 Ubiquitin Ligase Complex; von Hippel-Lindau Protein Complex; VHL-Elongin Complex
Source:	<i>Escherichia coli</i>
Molecular Weight:	VHL: 18.49 kDa Elongin B (ELOB): 13.1 kDa (calculated; ~18 kDa by SDS-PAGE) Elongin C (ELOC): 10.8 kDa (calculated; ~12 kDa by SDS-PAGE)
Amino Acid Sequence	VHL:

	GMEAGRPRPV LRSVNSREPS QVIFCNRSR VVLPVWLNFD GEPQPYPTLP PGTGRRIHSY RGHLWLFDA GTHDGLLVNQ TELFVPSLNV DGQPIFANIT LPVYTLKERC LQVVRSLVKP ENYRRLDIVR SLYEDLEDHP NVQKDLERLT QERIAHQRMG D ElonginB: MDVFLMIRRH KTTIFTDAKE SSTVFELKRI VEGILKRPPD EQRLYKDDQL LDDGKTLGEC GFTSQARPQ APATVGLAFR ADDTFEALCI EPFSSPELP DVMKPQDSGS SANEQAVQ ElonginC: MYVKLISSDG HEFIVKREHA LTSGTIKAML SGPGQFAENE TNEVNFREIP SHVLSKVCMY FTYKVRYTNS STEIPEFPIA PEIALELLMA ANFLDC
Purity	> 90%

Storage Buffer and Concentration

20 mM Tris-HCl pH 7.5, 50 mM NaCl, 2 mM β -ME, 50% Glycerol. See product label for protein concentration.

Quality Control

The purity of VHL-ELOB-ELOC was verified by SDS-PAGE under reducing conditions.

Product Use

ScienCell's VHL-ELOB-ELOC is for research use only. It is not approved for human or animal use, or for application in clinical or in vitro diagnostic procedures.

Shipping and Storage

The product is shipped on dry ice. Upon receipt, store at -20°C in a manual defrost freezer.