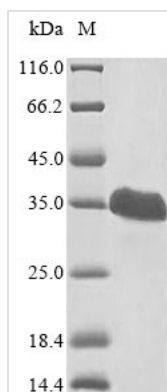




Recombinant Human Von Hippel-Lindau disease tumor suppressor (VHL)

Product Code	CSB-EP025852HU
Relevance	Involved in the ubiquitination and subsequent proteasomal degradation via the von Hippel-Lindau ubiquitination complex. Seems to act as a target recruitment subunit in the E3 ubiquitin ligase complex and recruits hydroxylated hypoxia-inducible factor (HIF) under normoxic conditions. Involved in transcriptional repression through interaction with HIF1A, HIF1AN and histone deacetylases. Ubiquitinates, in an oxygen-responsive manner, ADRB2.
Abbreviation	Recombinant Human VHL protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P40337
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	MPRRAENWDEAEVGAEAEAGVEEYGPPEEDGGEEESGAEESGPPEESGPEELGA EEEMEAGRPRPVLRSVNSREPSQVIFCNRSPRVLPVWLNFDGEPQPYPTLP PGTGRIHSYRGHLWLFRDAGTHDGLLVNQTELFVPSLNVDDGQPIFANITLPVY TLKERCLQVVRSLVKPENYRRLDIVRSLYEDLEDHPNVQKDLERLTQERIAHQ RMGD
Research Area	Cancer
Source	E.coli
Target Names	VHL
Protein Names	Protein G7 pVHL
Expression Region	1-213aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged
Mol. Weight	28.2 kDa
Protein Length	Full Length
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

The recombinant Human VHL was expressed with the amino acid range of 1-213. This VHL protein is theoretically predicted to have a molecular weight of 28.2 kDa. This protein is generated in a e.coli-based system. The N-terminal 6xHis tag was smoothly integrated into the coding gene of VHL, which enables a simple process of detecting and purifying the VHL recombinant protein in the following steps.

The human Von Hippel-Lindau disease tumor suppressor (VHL) is a critical protein that plays a key role in the regulation of cellular responses to oxygen levels. It functions as a tumor suppressor by targeting specific proteins for degradation, particularly under conditions of normoxia (normal oxygen levels). VHL is best known for its role in the ubiquitin-proteasome pathway, where it serves as the substrate recognition component of an E3 ubiquitin ligase complex. In normoxic conditions, VHL binds to hypoxia-inducible factor (HIF), marking it for ubiquitination and subsequent degradation. HIF is a transcription factor that, under low oxygen levels (hypoxia), would typically induce the expression of genes involved in angiogenesis and glycolysis. Therefore, VHL indirectly regulates the cellular response to hypoxia by preventing the accumulation of HIF. Mutations in the VHL gene are associated with Von Hippel-Lindau disease, a hereditary cancer syndrome characterized by the development of tumors in various organs. Research on VHL often explores its intricate involvement in cellular oxygen sensing, angiogenesis, and tumor suppression.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.