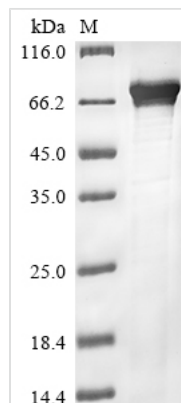




# Recombinant Human Cryptochrome-2 (CRY2)

<b>Product Code</b>	CSB-EP673229HU
<b>Abbreviation</b>	Recombinant Human CRY2 protein
<b>Storage</b>	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.
<b>Uniprot No.</b>	Q49AN0
<b>Storage Buffer</b>	Tris-based buffer, 50% glycerol
<b>Product Type</b>	Recombinant Proteins
<b>Immunogen Species</b>	Homo sapiens (Human)
<b>Purity</b>	Greater than 85% as determined by SDS-PAGE.
<b>Sequence</b>	MAATVATAAAVAPAPAPGTDSASSVHWFRKGLRLHDNPALLAAVRGARCVR VYILDPWFAASSSVGINRWRFLQSLDLTSLRKLNSRLFVVRGQPADVFPR LFKEWGVTRLTFEYDSEPFGERDAAIMKMAKEAGVEVVTENSHTLYDLDRIE LNGQKPLTYKRFQAIISRMELPKKPVGLVTSQQMESCR AEIQENHDETYGVP SLEELGFPT EGLGPAVWQGGETEALARLDKHLERKAWVANYERPRMNANSL ASPTGLSPYLRFGCLSCRLFYYRLWDLYKKVKRNSTPPLSLFGQLLWREFFYT AATNNPRFDRMEGNPICIQIPWDRNPEALAKWAEGKTGFPWIDAIMTQLRQEG WIHHLARHAVACFLTRGDLWVSWESGVRVFDL LLDADFSVNAGSWMWLSC SAFFQQFFHCYCPVGFGRRTPSGDYIRRYLPKLKAFPSRYIYEPWNAPESIQ KAAKCIIGVDYPRPIVNHAE TSRLNIERMKQIYQQLSR YRGLCLLASVPSCVEDL SHPVAEPSSSQAGSMSSAGPRPLPSGPASPKRKLEAAEPPGEELSKRARVA ELPTPELPSKDA
<b>Research Area</b>	Cardiovascular
<b>Source</b>	E.coli
<b>Target Names</b>	CRY2
<b>Protein Names</b>	Recommended name: Cryptochrome-2
<b>Expression Region</b>	1-593aa
<b>Notes</b>	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
<b>Tag Info</b>	N-terminal 10xHis-tagged and C-terminal Myc-tagged
<b>Mol. Weight</b>	74.4 kDa
<b>Protein Length</b>	Full Length
<b>Image</b>	



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

## Description

Amino acids 1-593 constitute the expression domain of recombinant Human CRY2. The calculated molecular weight for this CRY2 protein is 74.4 kDa. This CRY2 protein is produced using e.coli expression system. Fusion of the N-terminal 10xHis tag and C-terminal Myc tag into the CRY2 encoding gene fragment was conducted, allowing for easier detection and purification of the CRY2 protein in subsequent stages.

Human cryptochrome-2 (CRY2) is a core component of the circadian clock, regulating the sleep-wake cycle and biological rhythms. CRY2, alongside CRY1, interacts with the CLOCK-BMAL1 complex, influencing transcriptional repression during the circadian cycle. In chronobiology, CRY2 is pivotal for maintaining circadian rhythms and synchronizing internal processes with environmental cues. Research on CRY2 extends to metabolic disorders, as it affects energy metabolism and glucose homeostasis. Additionally, CRY2 is involved in DNA repair and cancer biology, influencing tumor suppression mechanisms. Studying CRY2 provides insights into circadian regulation, metabolism, and cancer pathways, offering potential applications in treating circadian-related disorders, metabolic diseases, and cancer therapeutics.

## 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.