

Recombinant CRY2 protein

Catalog No: 82173, 82773

Expressed In:

Quantity: 20, 1000 µg

Source: Human

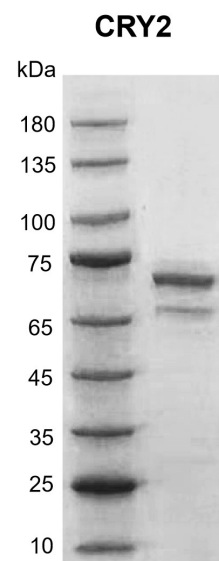
Buffer Contents: Recombinant CRY2 protein is supplied in 25 mM HEPES pH 7.5, 300 mM NaCl, 20% glycerol, 0.04% Triton X-100, 0.5 mM TCEP.

Background: Recombinant human **CRY2 (cryptochrome-2)**, also known by its gene symbol **CRY2 (cryptochrome-2)** and alternative names including HCRY2, PHLL2 (photolyase-like 2), and growth-inhibiting protein 37, is a flavin adenine dinucleotide (FAD)- binding protein that serves as a core component of the circadian core oscillator complex, where it functions as a potent transcriptional repressor by forming heterodimers with PER proteins to inhibit CLOCK-BMAL1-mediated transcription, thereby establishing the negative feedback loop essential for generating approximately 24-hour circadian rhythms. Beyond its central role in rhythm generation, this multifunctional protein exhibits distinct properties from its paralog CRY1, including predominant nuclear localization mediated by a unique nuclear localization signal in its C-terminal region and lack of DNA-binding activity. The recombinant form, typically produced in expression systems such as E. coli or insect cells, retains these key biochemical properties and is widely used in research to study circadian mechanisms, metabolic pathways including glucose and lipid metabolism modulation through transcriptional regulation of genes such as LEPTIN and ACSL4, and repression of glucocorticoid receptor transcriptional activity.

Protein Details: Recombinant CRY2 protein was expressed in baculovirus expression system as the full length protein (accession number NP_066940.3) with a N-terminal FLAG tag. The molecular weight of the protein is 68.22 kDa.

Application Notes: This product was manufactured as described in Protein Details. Where possible, Active Motif has developed functional or activity assays for recombinant proteins. Additional characterization such as enzyme kinetic activity assays, inhibitor screening or other biological activity assays may not have been performed for every product. All available data for this product is shown.

Storage and Guarantee: Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is for research use only and is not for use in diagnostic procedures. This product is guaranteed for 6 months from date of arrival.



Recombinant CRY2 protein gel
4-20% SDS-PAGE gel
MW: 68.22 kDa
Purity: >90%