



# Recombinant strain K12 RHO Protein Product Manual

## 1. Product Basic Information

**Product No.:** REP08051

**Protein Name:** Opsin 2, Rod Pigment (RHO)

**Aliases:** RP4; OPN2; CSNBAD1; opsin-rhodopsin; opsin 2, rod pigment

**UniProt ID:** P08100

**UniProt Link:** <https://www.uniprot.org/uniprotkb/P08100/entry>

**Species Source:** Escherichia coli (strain K12)

**Expression System:** E.coli

**Protein Length:** Full Length (1-419aa)

**Molecular Weight:** 51.0kDa

**Protein Tag:** N-terminal 6xHis-tagged

## 2. Amino Acid Sequence (1-419aa)

MNLTELKNTVPVSELITLGENMGLENLARMRKQDIIFAILKQHAKSGEDIFGDGVLEILQ  
DGFGFLRSADSSYLAGPDDIYVSPSQIRRFNLRTGDTISGKIRPPKEGERYFALLKVN  
EVNFDKPENARNKILFENLTPLHANSRLRMRGNGSTEDLTARVLDLASPIGRGQR  
GLIVAPPKAGKTMLLQNI AQSIAYNHPCVLMVLLIDERPEEVTEMQRLVKGEVVAS  
TFDEPASRHHVQVAEMVIEKAKRLVEHKKDVIILLDSITRLARAYNTVVPASGKVL TGG  
VDANALHRPKRFFGAARNVEEGGSLTIIATALIDTGSKMDEVIYEEFKGTGNMELHL  
SRKIAEKRVFPAYDYNRSRGTREKELLTQEELQKMWILRKIIHPMGEIDAMEFLINKLA  
MTKTNDFFEMMKRS

## 3. Storage Buffer

**Liquid Delivery Form:** Tris/PBS-based buffer with 5%-50% glycerol. Custom glycerol content is available upon customer request (please specify requirements when placing orders).

**Lyophilized Powder Delivery Form:** Pre-lyophilization buffer is Tris/PBS-based buffer containing 6% Trehalose.



## 4. Storage Conditions

Upon receipt, store the product at -20°C or -80°C. It is recommended to aliquot the protein for multiple uses to avoid repeated freeze-thaw cycles, which may cause protein denaturation and activity loss.

## 5. Product Description

This product is a recombinant strain K12 RHO full length protein (1-419aa) expressed in E.coli. The protein is with 6xHis tag at the N-terminus, which facilitates protein purification, detection and identification. RHO, also known as RP4 or OPN2 or CSNBAD1, is suitable for related in vitro functional assays, protein interaction studies, antibody preparation and other biomedical research applications.

## 6. Notes

- Repeated freezing and thawing of the product is strictly prohibited to ensure protein stability and biological activity.
- For special buffer component requirements, please submit a note when purchasing.
- This product is only for scientific research use, not for clinical diagnosis, treatment or commercial production purposes.