



Rhodopsin (1-100): sc-4477 WB

BACKGROUND

G protein coupled receptors (GPCRs), which are characterized as containing seven transmembrane helices, elicit G protein-mediated signaling cascades in response to a variety of stimuli. The opsin subfamily, which represents approximately 90 percent of all GPCRs, is comprised of photoreceptors that are activated by light, and they include the red, green and blue-sensitive opsins and rhodopsin. The opsin subfamily consists of an apoprotein covalently linked to 11-cis-retinal, which undergoes isomerization upon the absorption of photons. This isomerization leads to a conformational change of the protein, which results in the activation of hundreds of G proteins. Specifically, rhodopsin, a 40 kDa protein, exhibits a maximal absorption at 495 nm and mediates vision in dim light. Mutations in the rhodopsin gene lead to retinitis pigmentosa, which can be inherited as an autosomal dominant, an autosomal recessive or an X-linked recessive disorder.

REFERENCES

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SOURCE

Rhodopsin (1-100) is expressed in *E. coli* as a 38 kDa tagged fusion protein corresponding to amino acids 1-100 of Rhodopsin of human origin.

PRODUCT

Rhodopsin (1-100) is purified from bacterial lysates (>98%) by glutathione agarose affinity chromatography; supplied as 10 µg in 0.1 ml SDS-PAGE loading buffer.

STORAGE

Store at -20° C; stable for one year from the date of shipment.

APPLICATIONS

Rhodopsin (1-100) is suitable as a Western blotting control for sc-14355 and sc-15382.

RESEARCH USE

For research use only, not for use in diagnostic procedures.