

Bacteriorhodopsin (*Halobacterium salinarum*)

Lot # 600431-3023-024

Product	Catalog No.	Package size
Bacteriorhodopsin_Hs (500 µg)	28903	5 x 100 µg

Product Description

Alternative names	BR, HsBR
UniProt number	P02945
Protein class	7-transmembrane protein
Organism	<i>Halobacterium salinarum</i> S9
Sequence	Full-length, wild-type sequence N-terminal signal sequence (mostly absent in the preparation)
	MLELLPTAVEGVS QAQITGRPEWIWLALGTALMGLGTYFLVKGMGVSDPDAKKFYAITTLVP AIAFTMYLSMLLGYGLTMVFPFGGEQNPIYWARYADWLFTTPLLLLDLALLVDADQGTILALVGAD GIMIGTGLVGALTKVYSYRFVWVAISTAAMLYILYVLFPGFTSKAESMRPEVASTFKVLRNVTVV LWSAYPVVWLIGSEAGIVPLNIETLLFMVLDVSAKVGFGLILLRSRAIFGEAEAPEPSAGDGAA ATSD
Affinity tags	none
Size (excluding signal sequence)	262 (249) amino acids 28,256 (27,052) Da
Absorbance	Extinction coefficient at 560 nm: 63,000 M ⁻¹ cm ⁻¹
Function	Photoreceptor protein undergoing a photocycle, Retinal protein, light-driven proton pump

Quality Control

Purity	>98% as determined by SDS-PAGE, see Figure 1
Activity	Binding of ligand all-trans retinal, covalently bound to a lysine residue. Evaluation of UV-VIS spectrum: absorbance ratio 280 nm / 560 nm = 2.3, see Figure 2

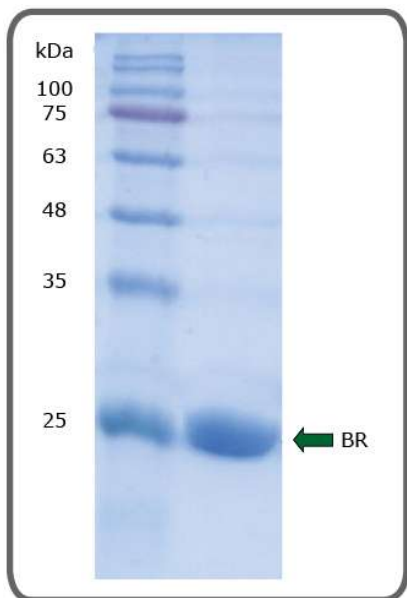


Fig. 1: SDS-PAGE of BR from *H. salinarum*.

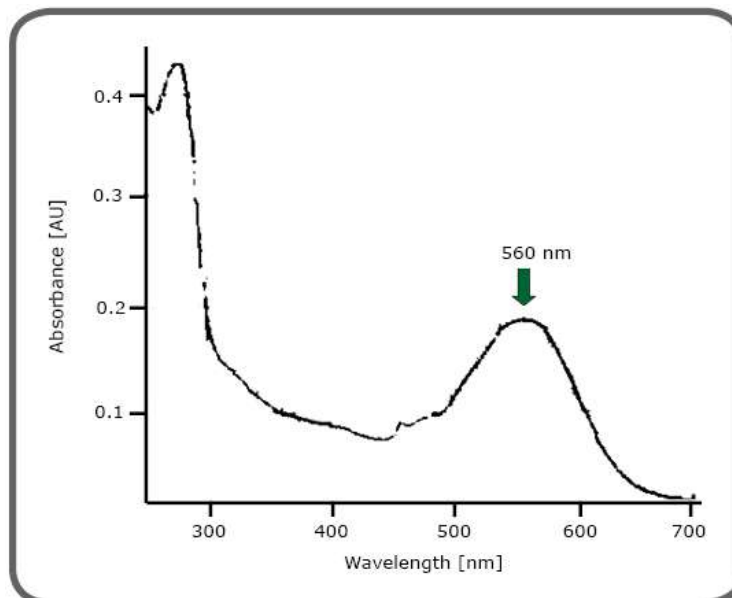


Fig. 2: Absorbance spectrum of BR from *H. salinarum*.

Preparation:

Expression system	<i>Halobacterium salinarum</i> S9
Purification	Differential centrifugation
Buffer	Purple membrane (PM) patches in H ₂ O, 0.02% NaN ₃
Concentration	8.3 mg/mL
Volume	65 µL per 100 µg aliquot

Applications

- SDS-PAGE
- Western Blot
- Protein Crystallization
- Biochemical and biophysical analyses

Shipping & Storage

Shipping conditions	Dry ice
Storage conditions	-80°C. Avoid freeze-thaw cycles
Important: Bacteriorhodopsin is light-sensitive and must be stored in the dark.	

Disclaimer: Our products are intended for molecular biology applications. These products are not intended for the diagnosis, prevention, or treatment of a disease.

Proteins are our passion.