

Figure A1. Reverse transcription-PCR (RT-PCR) analysis of the six rhodopsins and three putative signal transducers.

Expression profiles (intensity of the rhodopsin /intensity of the 16s rRNA band) of all rhodopsins (*bop*, *hop*, *sop1*, *sop2*, *xop1* and *xop2*) and transducers (*htr1*, *htr2* and *htrM*) in cells grown in the presence (white columns) or absence (black columns) of white light analyzed using RT-PCR and gene-specific primers. The expression profiles of these genes in early-, mid-, and late log phase cultures (i.e. O.D.₆₀₀=0.5, 1.0, and 1.5, respectively) were also analyzed by RT-PCR. 16s rRNA transcript was used as an internal reference for relative quantification.

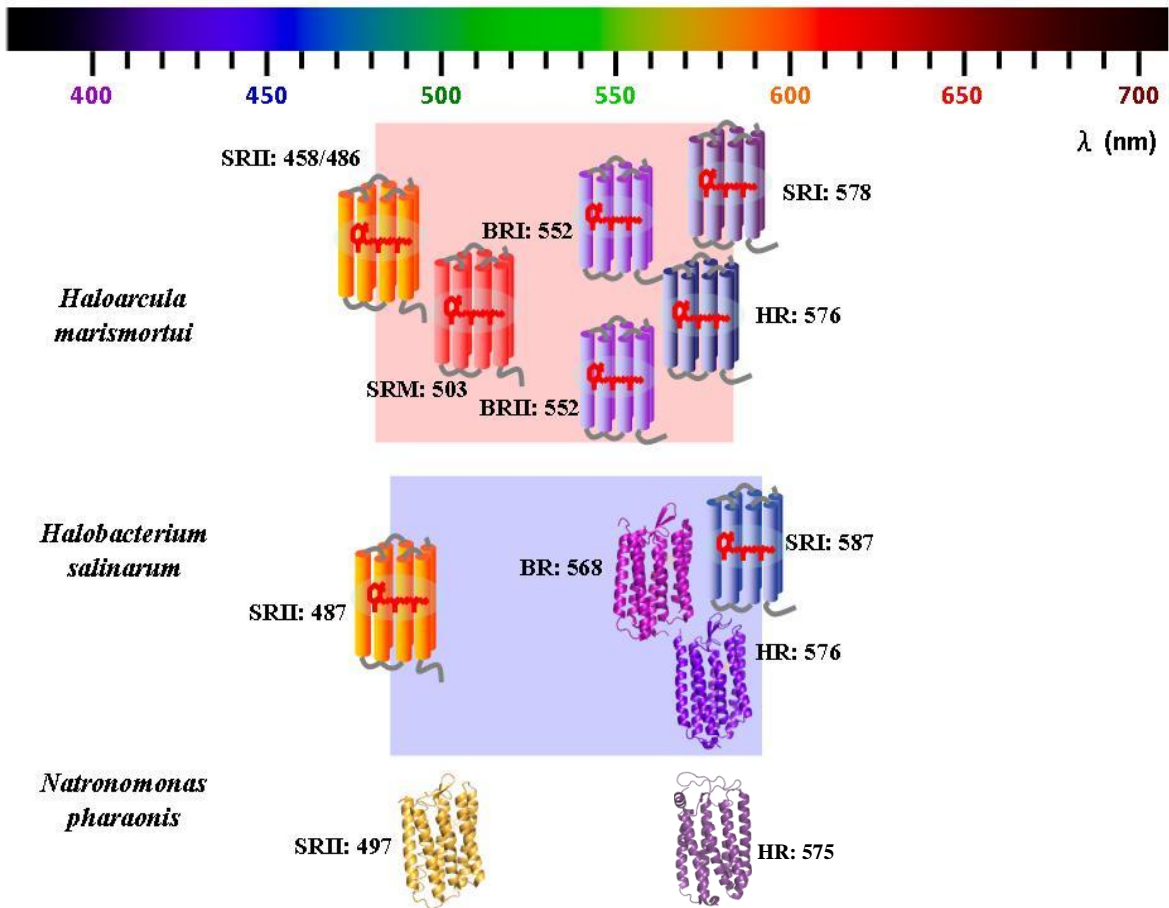


Figure A2. The maximum absorbance (λ_{\max} , nm) distribution patterns of known rhodopsins found in Halobacteria compared to those of the six newly identified rhodopsins from *H. marismortui* described in this study.

Four well-studied photoreceptors in *H. salinarum* respond to almost the same light wavelengths as those in *H. marismortui*; however, there are six rhodopsins in *H. marismortui*. NpSRII from *Natronomonas pharaonis* mediates a photorepellent response, and NpHR from *Natronomonas pharaonis* plays a role in transporting chloride into the cytosol upon light activation.