

Table 1 Major protein content of 1 μm^2 of rod disk membrane

Membrane component ^a	Mol. wt.	No./ μm^2	Ratio to rhodopsin	Diameter ^b (nm)	Projected molecule area (nm ²)	Total area (nm ²)	Percent area
Lipid	800	1.6×10^6	65		0.5	8.0×10^5	80.0
Rhodopsin (in membrane)	24,000	25,000	1	3.2	7.5	2.0×10^5	20.0
Na ⁺ channel	39,000	415	1/60	?	?	?	?
Rhodopsin head	9,000	25,000	1	2.8	6.2	15.5×10^4	15.5
G protein	80,000	2,500	1/10	5.8 (10) ^c	26.0 (78.5) ^c	6.5×10^4	6.5 (19.5) ^c
Phosphodiesterase	190,000	415	1/60	7.8	46.7	1.9×10^4	1.9
% Membrane Area Covered With Surface Bound Proteins:							23.9 (36.9) ^c

^aThe first three components are embedded in the oily membrane interior, whereas the last three components are located on the membrane surface.

^bSpherical-equivalent diameter based on molecular weight.

^cNumbers in parentheses are calculated for 5:1 axial ratio oblate ellipsoid as per text discussion.