

Table S3. 7TMR candidate proteins identified from the *Oryza sativa* genome. 84 proteins were obtained by combining the results of eight classifiers and two TM prediction methods. 64 proteins (listed with yellow background) were identified by taking the intersection of positives predicted by "6 classifiers" and "7-8 TM". Another 20 proteins (listed with white background) were identified taking the intersection of positives predicted by "SAM2+GPCRHMM" and "5-10 TM".

"**Gookin**": Names of the 8 high-ranking GPCR proteins identified by Gookin et al. (2008).

"**Phobius_SIG**": Signal peptide prediction by Phobius (Y: yes, N: no).

"**Phobius**": Number of transmembrane regions predicted by Phobius.

"**Phobius_Nterm**": Location of N-terminus predicted by Phobius (IN: intracellular, OUT: extracellular).

"**HMMTOP**": Number of transmembrane regions predicted by HMMTOP.

"**HMMTOP_Nterm**": Location of N-terminus predicted by HMMTOP (IN: intracellular, OUT: extracellular).

"**GPCRHMM**": GPCR prediction by GPCRHHM (G: GPCR, N: non-GPCR).

SeqID	Gookin	Length (aa)	Phobius_SIG	Phobius	Phobius_Nterm	HMMTOP	HMMTOP_Nterm	GPCRHMM	Description
gi 115434780 ref NP_001042148.1		385	N	8	IN	7	IN	R	Os01g0171800 [Oryza sativa (japonica cultivar-group)]
gi 115434858 ref NP_001042187.1		371	N	7	OUT	7	OUT	R	Os01g0177900 [Oryza sativa (japonica cultivar-group)]
gi 115437336 ref NP_001043270.1		243	Y	7	OUT	7	OUT	R	Os01g0541800 [Oryza sativa (japonica cultivar-group)]
gi 115437960 ref NP_001043423.1		371	N	8	IN	8	IN	R	Os01g0585100 [Oryza sativa (japonica cultivar-group)]
gi 115438366 ref NP_001043522.1		254	N	7	OUT	7	OUT	R	Os01g0605700 [Oryza sativa (japonica cultivar-group)]
gi 115439407 ref NP_001043983.1		230	N	7	OUT	7	OUT	R	Os01g0700100 [Oryza sativa (japonica cultivar-group)]
gi 115439957 ref NP_001044258.1	Os01g54784.1	361	N	7	OUT	7	OUT	G	Os01g0751300 [Oryza sativa (japonica cultivar-group)]
gi 115440045 ref NP_001044302.1		425	N	7	OUT	8	OUT	R	Os01g0758400 [Oryza sativa (japonica cultivar-group)]
gi 115440907 ref NP_001044733.1	Os01g61970.1	449	Y	7	OUT	9	OUT	G	Os01g0836800 [Oryza sativa (japonica cultivar-group)]
gi 115441485 ref NP_001045022.1	Os01g66190.1	397	N	7	OUT	7	OUT	G	Os01g0885200 [Oryza sativa (japonica cultivar-group)]
gi 115441521 ref NP_001045040.1		502	N	7	OUT	7	OUT	R	Os01g0888600 [Oryza sativa (japonica cultivar-group)]
gi 115442393 ref NP_001045476.1		294	Y	7	OUT	7	IN	R	Os01g0962200 [Oryza sativa (japonica cultivar-group)]
gi 115443813 ref NP_001045686.1		343	N	7	OUT	8	IN	R	Os02g0117400 [Oryza sativa (japonica cultivar-group)]
gi 115444011 ref NP_001045785.1		362	Y	7	OUT	7	OUT	R	Os02g0130600 [Oryza sativa (japonica cultivar-group)]
gi 115444835 ref NP_001046197.1		386	N	7	OUT	7	OUT	R	Os02g0197200 [Oryza sativa (japonica cultivar-group)]
gi 115445495 ref NP_001046527.1		249	N	7	OUT	7	OUT	R	Os02g0272600 [Oryza sativa (japonica cultivar-group)]
gi 115446237 ref NP_001046898.1		268	N	7	OUT	7	OUT	R	Os02g0498300 [Oryza sativa (japonica cultivar-group)]
gi 115446649 ref NP_001047104.1		590	Y	9	OUT	10	IN	G	Os02g0552000 [Oryza sativa (japonica cultivar-group)]
gi 115446783 ref NP_001047171.1		449	N	7	IN	8	IN	R	Os02g0566400 [Oryza sativa (japonica cultivar-group)]
gi 115446853 ref NP_001047206.1		393	N	8	IN	7	OUT	R	Os02g0574500 [Oryza sativa (japonica cultivar-group)]
gi 115447373 ref NP_001047466.1		296	N	7	OUT	8	IN	R	Os02g0622200 [Oryza sativa (japonica cultivar-group)]
gi 115449063 ref NP_001048311.1		428	N	7	OUT	7	OUT	R	Os02g0781600 [Oryza sativa (japonica cultivar-group)]
gi 115449169 ref NP_001048364.1		414	Y	9	OUT	10	IN	G	Os02g0792900 [Oryza sativa (japonica cultivar-group)]
gi 115450317 ref NP_001048759.1		325	N	7	IN	7	IN	R	Os03g0116400 [Oryza sativa (japonica cultivar-group)]
gi 115450373 ref NP_001048787.1		281	N	7	OUT	7	OUT	R	Os03g0120300 [Oryza sativa (japonica cultivar-group)]
gi 115450489 ref NP_001048845.1		555	N	7	OUT	9	OUT	R	Os03g0129100 [Oryza sativa (japonica cultivar-group)]
gi 115451741 ref NP_001049471.1		403	N	7	IN	7	IN	R	Os03g0232900 [Oryza sativa (japonica cultivar-group)]
gi 115451783 ref NP_001049492.1		595	Y	9	OUT	10	IN	G	Os03g0237000 [Oryza sativa (japonica cultivar-group)]
gi 115452861 ref NP_001050031.1		494	Y	7	OUT	8	IN	R	Os03g0334800 [Oryza sativa (japonica cultivar-group)]
gi 115454871 ref NP_001051036.1		291	N	7	OUT	8	OUT	R	Os03g0708400 [Oryza sativa (japonica cultivar-group)]
gi 115455557 ref NP_001051379.1		262	N	7	OUT	7	OUT	R	Os03g0766000 [Oryza sativa (japonica cultivar-group)]
gi 115455961 ref NP_001051581.1		393	N	8	IN	8	IN	R	Os03g0800000 [Oryza sativa (japonica cultivar-group)]
gi 115458580 ref NP_001052890.1	Os04g36630.1	421	Y	7	OUT	8	IN	G	Os04g0443700 [Oryza sativa (japonica cultivar-group)]
gi 115458586 ref NP_001052893.1		476	N	7	OUT	7	OUT	R	Os04g0444400 [Oryza sativa (japonica cultivar-group)]
gi 115458802 ref NP_001053001.1		340	Y	7	OUT	7	IN	R	Os04g0462300 [Oryza sativa (japonica cultivar-group)]

gi 115459130 ref NP_001053165.1		293	N	7	IN	7	IN	R	Os04g0490600 [Oryza sativa (japonica cultivar-group)]
gi 115460324 ref NP_001053762.1		404	N	7	OUT	7	OUT	R	Os04g0600800 [Oryza sativa (japonica cultivar-group)]
gi 115462691 ref NP_001054945.1		349	Y	7	OUT	8	IN	R	Os05g0220100 [Oryza sativa (japonica cultivar-group)]
gi 115463787 ref NP_001055493.1		264	N	7	IN	7	IN	R	Os05g0402300 [Oryza sativa (japonica cultivar-group)]
gi 115464335 ref NP_001055767.1		458	Y	7	OUT	8	IN	G	Os05g0462500 [Oryza sativa (japonica cultivar-group)]
gi 115464347 ref NP_001055773.1		275	N	8	IN	8	OUT	G	Os05g0463700 [Oryza sativa (japonica cultivar-group)]
gi 115464459 ref NP_001055829.1	Os05g39730.1	554	N	7	OUT	7	OUT	G	Os05g0474900 [Oryza sativa (japonica cultivar-group)]
gi 115465994 ref NP_001056596.1		388	N	8	OUT	7	IN	R	Os06g0112800 [Oryza sativa (japonica cultivar-group)]
gi 115466198 ref NP_001056698.1	Os06g04130.1	454	Y	7	OUT	9	OUT	G	Os06g0132100 [Oryza sativa (japonica cultivar-group)]
gi 115466482 ref NP_001056840.1		281	N	7	OUT	7	OUT	R	Os06g0153200 [Oryza sativa (japonica cultivar-group)]
gi 115466940 ref NP_001057069.1	Os06g09930.1	321	Y	7	OUT	7	OUT	G	Os06g0199800 [Oryza sativa (japonica cultivar-group)]
gi 115466978 ref NP_001057088.1		305	N	6	OUT	6	IN	G	Os06g0204400 [Oryza sativa (japonica cultivar-group)]
gi 115468130 ref NP_001057664.1		528	N	7	OUT	9	OUT	R	Os06g0486300 [Oryza sativa (japonica cultivar-group)]
gi 115468562 ref NP_001057880.1		416	N	8	IN	8	IN	R	Os06g0563900 [Oryza sativa (japonica cultivar-group)]
gi 115468604 ref NP_001057901.1		380	N	9	OUT	9	OUT	G	Os06g0568000 [Oryza sativa (japonica cultivar-group)]
gi 115469082 ref NP_001058140.1		452	N	7	IN	7	IN	R	Os06g0635200 [Oryza sativa (japonica cultivar-group)]
gi 115469246 ref NP_001058222.1		645	Y	9	OUT	10	IN	G	Os06g0650600 [Oryza sativa (japonica cultivar-group)]
gi 115470169 ref NP_001058683.1	Os07g01250.1	286	N	7	OUT	7	OUT	R	Os07g0102400 [Oryza sativa (japonica cultivar-group)]
gi 115470855 ref NP_001059026.1		244	N	7	IN	7	IN	R	Os07g0177300 [Oryza sativa (japonica cultivar-group)]
gi 115471777 ref NP_001059487.1		1093	N	8	OUT	8	OUT	R	Os07g0424400 [Oryza sativa (japonica cultivar-group)]
gi 115472177 ref NP_001059687.1		380	N	7	OUT	7	OUT	R	Os07g0493400 [Oryza sativa (japonica cultivar-group)]
gi 115472297 ref NP_001059747.1		434	N	7	OUT	8	OUT	R	Os07g0509200 [Oryza sativa (japonica cultivar-group)]
gi 115472429 ref NP_001059813.1		497	N	7	OUT	7	OUT	R	Os07g0522500 [Oryza sativa (japonica cultivar-group)]
gi 115473837 ref NP_001060517.1		393	N	7	OUT	7	OUT	R	Os07g0658100 [Oryza sativa (japonica cultivar-group)]
gi 115474401 ref NP_001060797.1		350	N	7	OUT	8	IN	R	Os08g0107400 [Oryza sativa (japonica cultivar-group)]
gi 115474625 ref NP_001060909.1		483	Y	7	OUT	8	IN	R	Os08g0128200 [Oryza sativa (japonica cultivar-group)]
gi 115474915 ref NP_001061054.1		314	N	8	IN	8	IN	G	Os08g0162000 [Oryza sativa (japonica cultivar-group)]
gi 115477619 ref NP_001062405.1		475	N	7	OUT	7	OUT	R	Os08g0544400 [Oryza sativa (japonica cultivar-group)]
gi 115477743 ref NP_001062467.1		646	Y	9	OUT	10	IN	G	Os08g0554900 [Oryza sativa (japonica cultivar-group)]
gi 115477747 ref NP_001062469.1		590	Y	9	OUT	10	IN	G	Os08g0555200 [Oryza sativa (japonica cultivar-group)]
gi 115479367 ref NP_001063277.1		532	Y	7	OUT	8	IN	R	Os09g0439700 [Oryza sativa (japonica cultivar-group)]
gi 115480625 ref NP_001063906.1		646	Y	9	OUT	10	IN	G	Os09g0557800 [Oryza sativa (japonica cultivar-group)]
gi 115480711 ref NP_001063949.1		332	Y	7	OUT	7	IN	R	Os09g0565600 [Oryza sativa (japonica cultivar-group)]
gi 115480894 ref NP_001064040.1		585	Y	9	OUT	9	OUT	G	Os10g0112600 [Oryza sativa (japonica cultivar-group)]
gi 115481414 ref NP_001064300.1		316	N	7	OUT	7	OUT	R	Os10g0200700 [Oryza sativa (japonica cultivar-group)]
gi 115482244 ref NP_001064715.1		859	Y	7	OUT	7	IN	R	Os10g0446200 [Oryza sativa (japonica cultivar-group)]
gi 115483024 ref NP_001065105.1		347	Y	7	OUT	8	IN	R	Os10g0524100 [Oryza sativa (japonica cultivar-group)]
gi 115483162 ref NP_001065174.1		294	Y	7	OUT	8	IN	R	Os10g0537500 [Oryza sativa (japonica cultivar-group)]
gi 115483192 ref NP_001065189.1		537	N	5	OUT	6	IN	R	Os10g0541000 [Oryza sativa (japonica cultivar-group)]
gi 115483817 ref NP_001065570.1		322	N	7	IN	8	IN	R	Os11g0112900 [Oryza sativa (japonica cultivar-group)]
gi 115484053 ref NP_001065688.1		278	N	7	OUT	7	IN	R	Os11g0136300 [Oryza sativa (japonica cultivar-group)]
gi 115484301 ref NP_001065812.1		358	N	8	IN	7	OUT	R	Os11g0159500 [Oryza sativa (japonica cultivar-group)]
gi 115484333 ref NP_001065828.1		529	N	8	IN	7	IN	R	Os11g0162300 [Oryza sativa (japonica cultivar-group)]
gi 115484335 ref NP_001065829.1		337	N	8	IN	8	IN	R	Os11g0162900 [Oryza sativa (japonica cultivar-group)]
gi 115484471 ref NP_001065897.1		593	Y	9	OUT	10	IN	G	Os11g0181100 [Oryza sativa (japonica cultivar-group)]
gi 115486807 ref NP_001068547.1		374	N	7	IN	7	IN	R	Os11g0704800 [Oryza sativa (japonica cultivar-group)]
gi 115487610 ref NP_001066292.1		598	Y	9	OUT	9	OUT	G	Os12g0175700 [Oryza sativa (japonica cultivar-group)]
gi 115488580 ref NP_001066777.1		458	N	8	IN	8	IN	R	Os12g0484600 [Oryza sativa (japonica cultivar-group)]
gi 115488760 ref NP_001066867.1		418	N	7	OUT	7	OUT	R	Os12g0511200 [Oryza sativa (japonica cultivar-group)]