

The Proteo-Science Center (PROS), Ehime University
List of papers related to membrane proteins

Characterization of mitochondrial carrier proteins of malaria parasite *Plasmodium falciparum* based on in vitro translation and reconstitution.

Nozawa A, Ito D, Ibrahim M, Santos HJ, Tsuboi T, Tozawa Y.

Parasitol Int. 2020 **79**:102160.

Substrate specificity of plastid phosphate transporters in a non-photosynthetic diatom and its implication in evolution of red alga-derived complex plastids.

Moog D, Nozawa A, Tozawa Y, Kamikawa R.

Sci Rep. 2020 **10**:1167.

Novel lineage-specific transmembrane β -barrel proteins in the endoplasmic reticulum of *Entamoeba histolytica*.

Santos HJ, Imai K, Makiuchi T, Tomii K, Horton P, Nozawa A, Okada K, Tozawa Y, Nozaki T.

FEBS J. 2019 **286**:3416-3432.

Engineered membrane protein antigens successfully induce antibodies against extracellular regions of claudin-5.

Hashimoto Y, Zhou W, Hamauchi K, Shirakura K, Doi T, Yagi K, Sawasaki T, Okada Y, Kondoh M, Takeda H.

Sci Rep. 2018 **8**:8383.

Functional G-Protein-Coupled Receptor (GPCR) Synthesis: The Pharmacological Analysis of Human Histamine H1 Receptor (HRH1) Synthesized by a Wheat Germ Cell-Free Protein Synthesis System Combined with Asolectin Glycosomes.

Suzuki Y, Ogasawara T, Tanaka Y, Takeda H, Sawasaki T, Mogi M, Liu S, Maeyama K. *Front Pharmacol.* 2018 **9**:38.

AGIA Tag System Based on a High Affinity Rabbit Monoclonal Antibody against Human Dopamine Receptor D1 for Protein Analysis.

Yano T, Takeda H, Uematsu A, Yamanaka S, Nomura S, Nemoto K, Iwasaki T, Takahashi H, Sawasaki T.

PLoS One. 2016 **11**: e0156716.

Production of monoclonal antibodies against GPCR using cell-free synthesized GPCR antigen and biotinylated liposome-based interaction assay.

Takeda H, Ogasawara T, Ozawa T, Muraguchi A, Jih PJ, Morishita R, Uchigashima M, Watanabe M, Fujimoto T, Iwasaki T, Endo Y, Sawasaki T.

Sci Rep. 2015 **5**:11333.

Evidence that the *Entamoeba histolytica* Mitochondrial Carrier Family Links Mitosomal and Cytosolic Pathways through Exchange of 3'-Phosphoadenosine 5'-Phosphosulfate and ATP.

Mi-ichi F, Nozawa A, Yoshida H, Tozawa Y, Nozaki T.

Eukaryot Cell. 2015 **14**:1144-50.

A novel Mitosomal β -barrel Outer Membrane Protein in *Entamoeba*.

Santos HJ, Imai K, Makiuchi T, Tomii K, Horton P, Nozawa A, Ibrahim M, Tozawa Y, Nozaki T.

Sci Rep. 2015 **5**:8545.

High-throughput synthesis of stable isotope-labeled transmembrane proteins for targeted transmembrane proteomics using a wheat germ cell-free protein synthesis system.

Takemori N, Takemori A, Matsuoka K, Morishita R, Matsushita N, Aoshima M, Takeda H, Sawasaki T, Endo Y, Higashiyama S.
Mol Biosyst. 2015 **11**:361-5.

The ligand binding ability of dopamine D1 receptors synthesized using a wheat germ cell-free protein synthesis system with liposomes.

Arimitsu E, Ogasawara T, Takeda H, Sawasaki T, Ikeda Y, Hiasa Y, Maeyama K.
Eur J Pharmacol. 2014 **745**:117-22.

Incorporation of adenine nucleotide transporter, Ant1p, into proteoliposomes facilitates ATP translocation and activation of encapsulated luciferase.

Nozawa A, Tozawa Y.
J Biosci Bioeng. 2014 **118**:130-3.

Modifications of wheat germ cell-free system for functional proteomics of plant membrane proteins.

Nozawa A, Tozawa Y.
Methods Mol Biol. 2014 **1072**:259-72.

Characterization of the plastidic phosphate translocators in the inducible crassulacean acid metabolism plant *Mesembryanthemum crystallinum*.

Kore-eda S, Nozawa A, Okada Y, Takashi K, Azad MA, Ohnishi J, Nishiyama Y, Tozawa Y.
Biosci Biotechnol Biochem. 2013 **77**:1511-6.

Production and partial purification of membrane proteins using a liposome-supplemented wheat cell-free translation system.

Nozawa A, Ogasawara T, Matsunaga S, Iwasaki T, Sawasaki T, Endo Y.
BMC Biotechnol. 2011 **11**:35.

Cell-free synthesis, reconstitution, and characterization of a mitochondrial dicarboxylate-tricarboxylate carrier of *Plasmodium falciparum*.

Nozawa A, Fujimoto R, Matsuoka H, Tsuboi T, Tozawa Y.
Biochem Biophys Res Commun. 2011 **414**:612-7.

Robotic large-scale application of wheat cell-free translation to structural studies including membrane proteins.

Beebe ET, Makino S, Nozawa A, Matsubara Y, Frederick RO, Primm JG, Goren MA, Fox BG.
N Biotechnol. 2011 **28**:239-49.

Production of membrane proteins through the wheat-germ cell-free technology.

Nozawa A, Nanamiya H, Tozawa Y.
Methods Mol Biol. 2010 **607**:213-8.

Cell-free translation of integral membrane proteins into unilamellar liposomes.

Goren MA, Nozawa A, Makino S, Wrobel RL, Fox BG.
Methods Enzymol. 2009 **463**:647-73.

A cell-free translation and proteoliposome reconstitution system for functional analysis of plant solute transporters.

Nozawa A, Nanamiya H, Miyata T, Linka N, Endo Y, Weber AP, Tozawa Y.
Plant Cell Physiol. 2007 **48**:1815-20.