

Protein	PDB	Function	Name	No. residues with matching ESM1v scores	No. mutations with matching ESM1v scores	References
GCK	P35557	Enzyme	Glucokinase	463	8396	Gersing, S., Schulze, T. K., Cagiada, M., Stein, A., Roth, F. P., Lindorff-Larsen, K., & Hartmann-Petersen, R. (2024). Characterizing glucokinase variant mechanisms using a multiplexed abundance assay. <i>Genome biology</i> , 25(1), 98.
PTEN	P60484	Enzyme	Phosphatase and tensin homolog	383	5083	Matreyek, K. A., Starita, L. M., Stephany, J. J., Martin, B., Chiasson, M. A., Gray, V. E., ... & Fowler, D. M. (2018). Multiplex assessment of protein variant abundance by massively parallel sequencing. <i>Nature genetics</i> , 50(6), 874-882.
VKOR	Q9BQB6	Enzyme	Vitamin K expoxide reductase	162	2695	Chiasson, M. A., Rollins, N. J., Stephany, J. J., Sitko, K. A., Matreyek, K. A., Verby, M., ... & Fowler, D. M. (2020). Multiplexed measurement of variant abundance and activity reveals VKOR topology, active site and human variant impact. <i>elife</i> , 9, e58026.
NUDT15	Q9NV35	Enzyme	Nucleotide triphosphate diphosphatase	163	2922	Suiter, C. C., Moriyama, T., Matreyek, K. A., Yang, W., Scaletti, E. R., Nishii, R., ... & Yang, J. J. (2020). Massively parallel variant characterization identifies NUDT15 alleles associated with thiopurine toxicity. <i>Proceedings of the National Academy of Sciences</i> , 117(10), 5394-5401.
ASPA	P45381	Enzyme	Aspartoacylase	310	5843	Grønbaek-Thygesen, M., Voutsinos, V., Johansson, K. E., Schulze, T. K., Cagiada, M., Pedersen, L., ... & Hartmann-Petersen, R. (2024). Deep mutational scanning reveals a correlation between degradation and toxicity of thousands of aspartoacylase variants. <i>Nature Communications</i> , 15(1), 4026.
TPMT	P51580	Enzyme	Thiopurine S-methyltransferase	241	3648	Matreyek, K. A., Starita, L. M., Stephany, J. J., Martin, B., Chiasson, M. A., Gray, V. E., ... & Fowler, D. M. (2018). Multiplex assessment of protein variant abundance by massively parallel sequencing. <i>Nature genetics</i> , 50(6), 874-882.
CYP2C9	P11712	Enzyme	Cytochrome P450 enzyme	486	6370	Amorosi, C. J., Chiasson, M. A., McDonald, M. G., Wong, L. H., Sitko, K. A., Boyle, G., ... & Dunham, M. J. (2021). Massively parallel characterization of CYP2C9 variant enzyme activity and abundance. <i>The American Journal of Human Genetics</i> , 108(9), 1735-1751.
OCT	O15245	Transporter	Organic cation transporter 1	547	9803	Yee, S. W., Macdonald, C. B., Mitrovic, D., Zhou, X., Koleske, M. L., Yang, J., ... & Coyote-Maestas, W. (2024). The full spectrum of SLC22 OCT1 mutations illuminates the bridge between drug transporter biophysics and pharmacogenomics. <i>Molecular cell</i> , 84(10), 1932-1947.
PRKN	O60260	Enzyme	E3 ubiquitin-protein ligase parkin	465	8756	Clausen, L., Okarmus, J., Voutsinos, V., Meyer, M., Lindorff-Larsen, K., & Hartmann-Petersen, R. (2024). PRKN-linked familial Parkinson's disease: cellular and molecular mechanisms of disease-linked variants. <i>Cellular and Molecular Life Sciences</i> , 81(1), 223.