

Proteins encoded by human genes

<http://aris.gusc.lv/NutritionBioChem/HarperT54-3enCoded.pdf>

Harper's Biochemistry 26th edition 2003.

Table 54-3. Major classes of proteins encoded by human genes and its functions in ¹

HOMEOSTASIS

Class of Protein	Number	(%) ²		Functions
Channels integral membrane, lipoproteins, lipocalins and unknown	12809	41		
Receptors	1543	5		
Select regulatory molecules eg, G proteins, cell cycle regulators	988	3.2		
Proto-oncogenes	902	2.9		
Cytoskeletal structural proteins	876	2.8		
Nucleic acid enzymes	2308	7.5		Nucleic acid
Transcription factors	1850	6		Transcription
Hydrolases	1227	4.0		Hydrolases
Kinases	868	2.8		Kinases
				Reactions
Identified and unknown sum=	23371	75.2	20.3	% 6253
Not in account=	7707	24.8	23.3	7241
Total=	31078	100%		+ regulatory

¹ Data from Venter JC et al: The sequence of the human genome. Science 2001;291:1304.

² The percentages are derived from a total of 26,383 genes reported in the rough draft by Celera Genomics. Classes containing more than 2.5% of the total proteins encoded by the genes identified when this rough draft was written are arbitrarily listed as major.

Classes containing not more than 2.5% of the total size **123 364,550 kb**

proteins encoded by the genes using total size **100%** **4 934 582,000 kb**

Human Protein Reference Database HPRD: <http://www.hprd.org/> Protein Entries: **30047**

25 661 protein sequences encoded by 19 433 genes have been annotated in HPRD.