

## Molecular functions

### 1. Binding

- Amide binding
- Carbohydrate derivative binding
- Chromatin binding
- Cofactor binding
- Drug binding
- Heterocyclic compound binding
- Ion binding
- Lipid binding
- Molecular adaptor activity
- Organic cyclic compound binding
- Protein binding
- Protein-containing complex binding
- Small molecule binding

### 2. Catalytic activity

- Catalytic activity, acting on DNA
- Catalytic activity, acting on RNA
- Catalytic activity, acting on a protein
- Hydrolase activity
- Intramolecular transferase activity
- Ligase activity
- Lyase activity
- Oxidoreductase activity
- Transferase activity

### 3. Translation regulator activity

- DNA-binding transcription factor activity
- Transcription coregulator activity

### 4. Transporter activity

- Lipid transporter activity
- Transmembrane transporter activity

### 5. Structural molecular activity

- Extracellular matrix structural constituent
- Protein-containing complex scaffold activity
- Structural constituent of nuclear pore

### 6. Channel regulator Activity

### 7. Antioxidant activity

### 8. Receptor activity

### 9. Signal transducer activity

### 3. Biological regulation

- Regulation of biological process
- Regulation of biological quality
- Regulation of molecular function

### 4. Response to stimulus

- Cellular response to stimulus
- Detection of stimulus
- Immune response
- Response to biotic stimulus
- Response to chemical
- Response to endogenous stimulus
- Response to external stimulus
- Response to stress

### 5. Developmental process

- Anatomical structure development
- Anatomical structure morphogenesis
- Cellular developmental process
- Developmental growth

### 6. Rhythmic process

- Circadian rhythm

### 7. Multicellular organismal process

- Cytokine production
- Multicellular organism development
- Ossification
- Pattern specification process
- System process

### 8. Biological adhesion

- Cell adhesion

### 9. Metabolic process

- Biosynthetic process
- Catabolic process
- Cellular metabolic process
- Nitrogen compound metabolic process
- Organic substance metabolic process
- Oxidation-reduction process
- Pigment metabolic process
- Primary metabolic process
- Small molecule metabolic process

### 10. Immune system process

- Activation of immune response
- Immune effector process
- Immune response
- Immune system development
- Leukocyte activation
- Leukocyte migration

## Biological process

### 1. Cellular process

- Cell communication
- Cell cycle process
- Cell cycle
- Cell death
- Cell division
- Cellular component organization
- Cellular developmental process
- Cellular homeostasis
- Cellular metabolic process
- Cellular response to stimulus
- Establishment or maintenance of cell polarity
- Execution phase of apoptosis
- Gene silencing
- Microtubule-based process
- Movement of cell or subcellular component
- Secretion by cell signal transduction

### 2. Localization

- Cellular localization
- Establishment of localization
- Localization of cell
- Macromolecule localization
- Maintenance of location
- Protein-containing complex localization

## Protein classes

### 1. Cytoskeletal protein

- Actin family cytoskeletal protein
- Microtubule family cytoskeletal protein

### 2. Transporter

- ATP-binding cassette (ABC) transporter
- Amino acid transporter
- Cation transporter
- Ion channel

### 3. Transferase

- Acyltransferase
- Glycosyltransferase
- Kinase
- Methyltransferase
- Nucleotidyltransferase
- Phosphorylase
- Transaminase

### 4. Oxidoreductase

- Dehydrogenase
- Oxidase
- Oxygenase
- Peroxidase
- Reductase

### 5. Lyase

- Cyclase

### 6. Cell adhesion molecule

- Immunoglobulin superfamily cell
- Adhesion molecule

### 7. Ligase

- Aminoacyl-tRNA synthetase
- Ubiquitin-protein ligase

### 8. Nucleic acid binding

- DNA binding protein
- RNA binding protein
- Nuclease

### 9. Signaling molecule

- Cytokine
- Growth factor
- Membrane-bound signaling molecule

### 10. Enzyme modulator

- G-protein modulator
- G-protein
- Kinase modulator
- Protease inhibitor

### 11. Calcium-binding protein

- Annexin
- Intracellular calcium-sensing protein
- 

### 12. Defense/immunity protein

- Antibacterial response protein
- Immunoglobulin receptor superfamily

### 13. Hydrolase

- Deacetylase
- Deaminase
- Esterase
- Glycosidase
- Lipase
- Phosphatase
- Protease
- Pyrophosphatase

### 14. Transfer/carrier protein

- Apolipoprotein

### 15. Membrane traffic protein

- Snare protein
- Membrane trafficking regulatory protein

### 16. Transcription factor

- Basic helix-loop-helix transcription factor
- Basic leucine zipper transcription factor
- Helix-turn-helix transcription factor
- Immunoglobulin fold transcription factor
- Transcription cofactor
- Zinc finger transcription factor

### 17. Cell junction protein

- Tight junction

### 18. Structural protein

- Myelin protein

### 19. Receptor

- G-protein coupled receptor
- Cytokine receptor
- Protein kinase receptor

### 20. Extracellular matrix protein

### 21. Transmembrane receptor regulatory/adaptor protein

### 22. Surfactant

### 23. Storage protein

### 24. Isomerase

### 25. Viral protein