

Enzyme commission (EC) numbers

Main classes of enzymes

- ▶ **1. Oxidoreductases**
- ▶ **2. Transferases**
- ▶ **3. Hydrolases**
- ▶ **4. Lyases**
- ▶ **5. Isomerases**
- ▶ **6. Ligases**
- ▶ **7. Translocases**

Catalyze oxidation & reduction
Transfer functional groups
Use water molecules to break bonds
Can make or break bonds
Convert a molecule from one isomer to another
Join molecules
Assist in moving molecules

aldehyde dehydrogenase (NADP+)

EC 1.2.1.4

Main class: Oxidoreductases

Subclass: Type of bond or compound
the enzyme acts on -
*Acting on the aldehyde or oxo
group of donors*

Sub-subclass: Further classification -
With NAD+ or NADP+ as acceptor

Serial number: Creates
a unique EC number -
aldehyde dehydrogenase (NADP+)

EC 1.2... EC 1...--

EC numbers:
Manual annotation
Transfer by similarity