## Types of Gene Splicing

1. Exon Skipping

- The most common form of alternative splicing.
- An exon is skipped during splicing, resulting in a shorter mRNA transcript.

2. Mutually Exclusive Exons

- Only one of two exons is included in the final mRNA.
- Ensures that different protein variants are produced from the same gene.

3. Alternative Donor Site

- Uses a different 5' splice site (donor site) within the same exon.
- Alters the beginning of the downstream exon.

4. Alternative Acceptor Site

- Uses a different 3' splice site (acceptor site).
- Changes the end of the upstream exon.

5. Intron Retention

- An introne that is normally spliced out is retained in the mature mRNA