

Typical Experiments used for Annotating to a Certain Evidence Code

<http://www.geneontology.org/GO.evidence.shtml>

Inferred from Direct Assay (IDA): ECO:0000314

- Enzyme assays using purified components
- In vitro* reconstitution of a functionally active complex
- Immuno-fluorescence microscopy
- Cell fractionation
- Physical interaction binding assays (when the exact binding partner is unknown)

Inferred from Physical Interaction (IPI): ECO:0000353

- 2 Hybrid interactions
- Co-purifications
- Co-immunoprecipitations
- Ion/ Metal/Protein Binding Assays (when the exact binding partner is known)

Inferred from Mutant Phenotype (IMP): ECO:0000315

- Mutation of a gene that results in a partial or complete impairment of resultant protein -Any treatment that disturbs the expression or normal functioning of the gene, such as:
 - Overexpression of wild-type or mutant gene
 - RNAi, anti-sense RNAs, antibody depletion
 - Using inhibitors, blockers, modifiers, changes in pH or ionic strength

Inferred from Genetic Interaction (IGI): ECO:0000316

- “Traditional” genetic interactions -Suppressors
- Synthetic lethals -Rescue experiments

Inferred from Expression Pattern (IEP): ECO:0000270

- Transcript levels or timing experiments
 - Northern blots
 - Microarray data
- Protein levels
 - Western blots

Evidence Codes (ECs) that require information in the “With/From” field

IPI

IGI

ISS (ECO:0000044)

ISO (ECO:0000266)

ISA (ECO:0000247)

If a protein is being curated to a specific GO term based on a physical or genetic interaction, sequence similarity, or sequence alignment, additional information about the reference protein must be given.