GO Evidence Code Decision Tree

What type of evidence is the annotation based on?

Experimental (wet lab)
- Is annotation based on genetic mutations or allelic variation?
  - no
  - Is a single gene being mutated or compared to other alleles of the same gene?
    - no
      - Is annotation based on a genetic interaction with another gene?
        - yes
        - Is annotation based on a direct 1 to 1 physical interaction with another gene product?
          - yes
          - Is annotation based on a direct assay for the function, process, or component of the gene product?
            - yes
              - Is annotation based on the expression pattern of the gene product?
                - yes
                - IEP
              - no
                - IDA
            - no
              - IPI
          - no
            - IGI
        - no
          - IMP
      - no
        - ISM
    - yes
      - IDA
  - yes
    - IPI
- no
  - Is annotation based on a direct assay for the function, process, or component of the gene product?
    - yes
      - IDA
    - no
      - IPI
- yes
  - Is annotation based on the expression pattern of the gene product?
    - yes
      - IEP
    - no
      - ISM

Non-Experimental (computational)
- Will each annotation be individually reviewed & confirmed by a human annotator?
  - yes
    - IEA
  - no
    - Is the computation based purely on the sequence of the gene product?
      - no
        - Does the computation include consideration of the genomic context of the gene?
          - no
            - IGC
          - yes
            - IGG
        - yes
          - Is the computation an integrated analysis, typically including experimental data sets, and often including multiple data types?
            - yes
              - RCA
            - no
              - IGC
      - yes
        - Is there a GO annotation in another aspect that allows a biocurator to make an inference based on that GO term for an aspect without evidence?
          - yes
            - IC
          - no
            - IS

Author statement from publication
- Is annotation based on a direct assay for the function, process, or component of the gene product?
  - yes
    - IDA
  - no
    - Is annotation based on the expression pattern of the gene product?
      - yes
        - IEP
      - no
        - ISM
- yes
  - Is the computation an integrated analysis, typically including experimental data sets, and often including multiple data types?
    - yes
      - RCA
    - no
      - IGC
- no
  - Does the computation include consideration of the genomic context of the gene?
    - yes
      - IGG
    - no
      - IGC
- no
  - Is the computation based purely on the sequence of the gene product?
    - yes
      - IEA
    - no
      - IMP
- yes
  - Is there a GO annotation in another aspect that allows a biocurator to make an inference based on that GO term for an aspect without evidence?
    - yes
      - IC
    - no
      - IS

Curator Statements
- Is annotation based on an author statement that cites a published reference as the source of the information?
  - yes
    - TAS
  - no
    - Is annotation based on an author statement that does not cite a published reference as the source of the information?
      - yes
        - NAS
      - no
        - Is there a GO annotation in another aspect that allows a biocurator to make an inference based on that GO term for an aspect without evidence?
          - yes
            - IC
          - no
            - IS

Note on use of ND evidence code:
Unlike the other evidence codes, the No Data (ND) code does not indicate evidence or a method from a specific reference. Rather, it indicates that the annotator looked at the available information and determined that nothing is known about the gene for a given aspect of GO (molecular function, biological process, or cellular component). The annotator will always look at all available literature for the gene. Depending on the resources and annotation philosophy of the annotating group, the annotator may also look at sequence comparison data to determine if any predictions may be made based on the sequence.