

## 3.9 Glossary

**Acute** - a disease having rapid onset, severe symptoms and a relatively short course – not chronic.

**Anneal** - the attachment of oligonucleotide primers to a specific site on a single stranded DNA segment.

**Aseptic** - the nature of preventing contamination of foreign microorganisms.

**Basal media** - a media formulation to which additional components may be added for a particular test.

**Carbohydrate** - a particular sugar used in a test.

**Chronic** - describes the course of a disease which is long and drawn out – not acute.

**Commercially prepared** - a component or test, which is available from a commercial source for purchase.

**Confirmatory identification** - identification of a pathogen through the completion of both initial screening techniques and another confirmatory test as described in this document, the results of which concur with each other for positive identification of a particular organism.

**Counterstain** - a stain used in FAT to achieve a dark background color of tissues and materials stained, aiding in the observation of fluorescing bacterial cells.

**Decolorize** - the application of a solution to stained material to remove excessive stain.

**Denature** - the enzymatic/temperature dependent activity which converts double stranded DNA to single stranded DNA.

**DNA extraction** - the process of obtaining pure, double stranded DNA from sample tissues and materials.

**Elution** - the washing of DNA from a spin column filter membrane.

**Extension** - the synthesis of a new, copied segment of DNA following denaturing and annealing processes involved with PCR.

**Fermentation** - bacterial utilization of a compound in the absence of oxygen.

**Filtrate** - the resultant liquid obtained from filtration.

**FITC** - fluorescein isothiocyanate, a reagent, which is used as an antibody label for the fluorescent antibody test.

**FITC-conjugated (antibody)** - describes the existence of a fluorescent label on an antibody used for the fluorescent antibody test.

**Lysate** - the product solution of tissue lysis.

**Nested-PCR** - a second PCR is performed, targeting a sub-segment of DNA produced in the first round PCR specific for a particular organism.

**Oxidation** - bacterial utilization of a compound in the presence of oxygen.

**Pellet** - the product of sedimentation of solid materials from a liquid resulting from centrifugation.

**Phenotypic characterization** - the detectable expression of a bacterial isolate to environmental conditions, biochemical testing and morphological observations recorded for the purpose of differentiation and determination of the species of bacteria.

**Polymerase chain reaction (PCR)** - a rapid procedure for in vitro enzymatic amplification of a specific segment of DNA.

**Positive control isolates** - bacterial isolates may be obtained from the American Type Culture Collection (ATCC: <http://www.atcc.org>).

**Post-dwell** - the period of time after cycles are completed in PCR.

**Presumptive identifications** - identification of a pathogen through the completion of initial screening tests as described in this document, where no other test has been performed to confirm the positive identification of the organism.

**Primary culture** - bacterial cultures achieved from media inoculated directly from fish tissues.

**Primer** - oligonucleotides that, in the presence of DNA and excess dNTP's, hybridize specifically to a target sequence and "prime" new DNA synthesis.

**Pure bacterial culture** - a culture of bacteria originating from an isolated colony.

**Quality control** - taking steps to assure that testing and results are accurate and reliable.

**Selective media** - a medium containing ingredients, which may either exclude growth of some microorganisms, select for growth of a particular species of microorganism, or both.

**Serological methods** - detection methods, which employ the use of an antibody against the target organism.

**Spin column** - a small filter unit provided by many commercial DNA extraction kits used to bind, wash, and elute DNA from tissue lysates.

**Stock suspension** - suspension of a compound, which must be further diluted before direct application in a particular test.

**Sub-acute** - a course of disease which exhibits some acute and some chronic symptoms.

**Subculture** - the transfer of an established bacterial culture to an uninoculated medium.

**Supernatant** - the surface fluid resulting from centrifugation of a liquid.

**Working suspension (dilution)** - suspension of a compound at the correct dilution for direct application in a particular test.

**Yellow-pigmented bacteria** - bacterial isolates which exhibit a yellow pigmentation on colony formations (e.g. *Flavobacterium* species).