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Meyers, T. R., S. Short, C. Farrington, K. Lipson, H. J. Geiger, and R. Gates. 1993. Establishment of a negative-positive threshold optical density value for the enzyme-linked immunosorbent assay (ELISA) to detect soluble antigen of *Renibacterium salmoninarum* in Alaskan Pacific salmon. *Diseases of Aquatic Organisms* 16:191-197.

Abstract: Kidney tissues from 5231 chinook salmon *Oncorhynchus tshawytscha* and 3793 coho salmon *O. kisutch* adults used for spawning were examined for soluble antigen of *Renibacterium salmoninarum* (Rs) by the enzyme-linked immunosorbent assay (ELISA). The purpose of this study was to develop an extensive data base for establishing a negative-positive threshold optical density value for Rs-negative and -positive fish using commercially available ELISA reagents. Statistical evaluation of the estimated distribution of Rs-negative optical density values from coho and chinook salmon indicated the preliminary estimated negative-positive threshold value of 0.1 was not conservative enough, i.e. there was an unacceptably high probability that a large number of low-level Rs-positive fish were not identified. Consequently, a more conservative threshold value of 0.095 was chosen that erred in identifying an acceptably low number of negative fish as positive. At this threshold optical density value the ELISA could detect about 20 ng of Rs antigen ml⁻¹ of kidney homogenate.

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