**Appendix S2 List of excluded studies with reasons.**

Article [1] was a review and excluded due to its nature.

Article [2] was not about the relationship between HSP70 and NIHL.

Article [3] was not about the relationship between HSP70 and NIHL.

Article [4] was not about the relationship between HSP70 and NIHL.

Article [5] was not about the relationship between HSP70 and NIHL.

Article [6] was not about the relationship between HSP70 and sudden hearing loss.

Article [7] was a review and excluded due to its nature.

Article [8] focus on the variation of hsp70 in cisplatin-induced hearing loss.

Article [9] was a review and excluded due to its nature.

Article [10] focus on the relationship between HSP70 and systemic lupus erythematosus but NIHL.

Article [11] studied HSP70 gene expression pattern rather than genetic polymorphisms in NIHL.

Article [12] studied HSP70 gene expression pattern rather than genetic polymorphisms in NIHL.

Article [13] did not investigate the HSP70 polymorphisms in NIHL.

Article [14] did not focus on the relationship between HSP70 and NIHL.

Article [15] did not focus on the relationship between HSP70 and NIHL.

Article [16] was a review and excluded due to its nature.

Article [17] did not focus on the relationship between HSP70 and NIHL.

Article [18] did not focus on the polymorphisms of HSP70 gene in NIHL.

Article [19] was not about the relationship between HSP70 and NIHL.

Article [20] did not investigate the HSP70 polymorphisms in NIHL.

Article [21] was not about the relationship between HSP70 and NIHL.

Article [22] did not focus on the polymorphisms of HSP70 gene in NIHL.

Article [23] did not investigate the HSP70 polymorphisms in NIHL.

Article [24] did not investigate the HSP70 polymorphisms in NIHL.

Article [25] studied HSP70 gene expression pattern rather than genetic polymorphisms in NIHL.

Article [26] did not focus on the polymorphisms of HSP70 gene in NIHL.

Article [27] focus on the polymorphisms associated with K+ Ion Circulation in the Inner Ear rather than HSP70 in NIHL subjects.

Article [28] focus on the variation of HSP70 expression but the polymorphisms in HSP70 gene.

Article [29] was a review and excluded due to its nature.

Article [30] was a review and excluded due to its nature.

Article [31] focus on the variation of HSP70 expression in a endotoxin-induced cochlea impairment model.

Article [32] was not a case-control study and excluded due to its nature.

Article [33] did not focus on the polymorphisms of HSP70 gene in NIHL.

Article [34] studied HSP70 gene expression pattern rather than genetic polymorphisms in NIHL.

Article [35] focus on the function of HSP70 in gentamicin-induced vestibular hair cell death.

Article [36] studied the function of HSP70 in aminoglycoside-induced hearing loss.

Article [37] was not a case-control study and excluded due to its nature.

Article [38] was not about the relationship between HSP70 and NIHL.

Article [39] did not focus on the HSP70 polymorphisms in NIHL.

Article [40] was a review and excluded due to its nature.

Article [41] was not about the relationship between HSP70 and NIHL.

Article [42] focus on the variation of HSP70 antibody but HSP70 polymorphisms in NIHL.

Article [43] focus on the variation of HSP70 antibody but HSP70 polymorphisms in NIHL.

Article [44] focus on the variation of hsp70 protein expression rather than HSP70 polymorphisms in NIHL.

Article [45] did not focus on the HSP70 polymorphisms in NIHL.

Paper [46] was an abstract and data are insufficient for analysis.

Paper [47] was an abstract and data are insufficient for analysis.

Paper [48] was an abstract and data are insufficient for analysis.

Paper [49] was an abstract and data are insufficient for analysis.

Paper [50] was an abstract of a poster and data are insufficient for analysis.

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