**Supplementary material 4: Risk of bias**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Authors, years (reference)** | **Q1** | **Q2** | **Q3** | **Q4** | **Q5** | **Q6** | **Q7** | **Q8** | **Q9** | **Total yes** | **Score(%)** | **Risk of bias**  |
| Raju et al. (2020)(55) | Yes | Yes | Yes | yes | Yes | Yes | yes | Yes  | Yes | 9 | 100,00 | Low |
| Atasoy et al. 2019(105) | Yes | Yes | Yes | yes | Yes | Yes | yes | Yes  | Yes | 9 | 100,00 | Low |
| Farage et al., 2019(112) | Yes | Yes | Yes | yes | Yes | Yes | yes | Yes  | Yes | 9 | 100,00 | Low |
| Raysova et al., 2019(44) | Yes | Yes | Yes | No | Yes | Yes | yes | No | No | 6 | 66,67 | Moderate |
| Bianchi et al., 2018(49) | Yes | Yes | Yes | yes | Yes | Yes | No | Yes  | Yes | 8 | 88,89 | Low |
| Halmos et al., 2018 a(41) | Yes | Yes | Yes | No | Yes | Yes | yes | Yes  | Yes | 8 | 88,89 | Low |
| Halmos et al., 2018 b(113) | Yes | Yes | Yes | No | Yes | Yes | yes | No | Yes | 8 | 88,89 | Low |
| Bustamante et al., 2017(38) | Yes | Yes | Yes | yes | Yes | Yes | yes | Yes  | Yes | 8 | 88,89 | Low |
| Hassan et al., 2017(106) | Yes | Yes | Yes | yes | Yes | Yes | yes | Yes  | No | 8 | 88,89 | Low |
| Losio et al., 2017(107) | Yes | Yes | Yes | yes | Yes | Yes | yes | Yes  | Yes | 9 | 100,00 | Low |
| Verma et al., 2017(98) | Yes | Yes | Yes | yes | Yes | Yes | yes | Yes  | Yes | 8 | 100,00 | Low |
| Farage et al., 2016(108) | Yes | Yes | Yes | yes | Yes | Yes | yes | Yes  | No | 8 | 88,89 | Low |
| Forbes & Dods, 2016(50) | Yes | Yes | Yes | No | Yes | Yes | No | No | No | 5 | 55,56 | Moderate |
| Fritz & Chen, 2016(109) | Yes | Yes | Yes | yes | Yes | Yes | yes | Yes  | Yes | 9 | 100,00 | Low |
| Mattioni et al., 2016(99) | Yes | Yes | Yes | yes | Yes | Yes | No | Yes  | Yes | 8 | 88,89 | Low |
| Thompson et al., 2016(94)  | Yes | Yes | Yes | yes | Yes | Yes | No | No | No | 6 | 66,67 | Moderate |
| Vincentini et al., 2016(51) | Yes | Yes | Yes | yes | Yes | Yes | yes | No | Yes | 8 | 88,89 | Low |
| Sharma et al., 2015(42) | Yes | Yes | Yes | yes | Yes | Yes | yes | No | No | 7 | 77,78 | Low |
| Thompson & Simon, 2015(63) | Yes | Yes | Yes | yes | Yes | Yes | No | Yes  | No | 7 | 77,78 | Low |
| Lee et al., 2014(110) | Yes | Yes | Yes | yes | Yes | Yes | yes | Yes  | Yes | 9 | 100,00 | Low |
| Oliveira et al., 2014(40) | Yes | Yes | Yes | yes | Yes | Yes | yes | No | No | 7 | 77,78 | Low |
| Gibert et al., 2013(52) | Yes | Yes | Yes | yes | Yes | Yes | yes | No | Yes | 8 | 88,89 | Low |
| Koerner et al., 2013(100) | Yes | Yes | Yes | yes | Yes | Yes | yes | Yes  | No | 7 | 77,78 | Low |
| Thompson & Grace, 2013(95) | Yes | Yes | Yes | yes | Yes | Yes | No | No | No | 6 | 66,67 | Moderate |
| Agakidis et al., 2011(39) | Yes | Yes | Yes | yes | Yes | Yes | yes | No | Yes | 8 | 88,89 | Low |
| Koerner et al. (2011)(53) | Yes | Yes | Yes | yes | Yes | Yes | yes | No | Yes | 8 | 88,89 | Low |
| McIntosh et al., 2011(96) | Yes | Yes | Yes | yes | Yes | Yes | No | No | No | 6 | 66,67 | Moderate |
| Cawthorn et al., 2010(45) | Yes | Yes | Yes | yes | Yes | Yes | yes | No | No | 7 | 77,78 | Low |
| Daniewski et al., 2010(101) | Yes | Yes | Yes | No | Yes | Yes | yes | No | No | 7 | 77,78 | Low |
| Laureano & Sliva, 2010(111) | Yes | Yes | Yes | yes | Yes | Yes | yes | No | Yes | 8 | 88,89 | Low |
| Plaza-Silva, 2010(97) | Yes | Yes | Yes | yes | Yes | Yes | No | No | No | 6 | 66,67 | Moderate |
| Thompson et al., 2010(102) | Yes | Yes | Yes | yes | Yes | Yes | yes | No | Yes | 8 | 88,89 | Low |
| Gelinas et al., 2008(46) | Yes | Yes | Yes | yes | Yes | Yes | yes | No | Yes | 8 | 88,89 | Low |
| **Authors, years (reference)** | **Q1** | **Q2** | **Q3** | **Q4** | **Q5** | **Q6** | **Q7** | **Q8** | **Q9** | **Total yes** | **Score(%)** | **Risk of bias**  |
| Hernando et al., 2008(43) | Yes | Yes | Yes | yes | Yes | Yes | yes | No | Yes | 8 | 88,89 | Low |
| Gabrovska et al. 2004(54) | Yes | Yes | Yes | yes | Yes | No | No | No | No | 5 | 55,56 | Moderate |
| Collin et al., 2004(93) | Yes | Yes | Yes | yes | Yes | Yes | No | Yes  | Yes | 8 | 88,89 | Low |
| Thompson, 2004 (103) | Yes | Yes | Yes | No | Yes | Yes | yes | No | Yes | 7 | 77,78 | Low |
| Storsrud et al., 2003(47) | Yes | Yes | Yes | No | Yes | Yes | yes | No | Yes | 8 | 88,89 | Low |
| Valdes et al., 2003(104) | Yes | Yes | Yes | yes | Yes | Yes | yes | No | No | 7 | 77,78 | Low |
| Dahinden et al., 2001(48) | Yes | Yes | Yes | yes | Yes | Yes | yes | No | No | 7 | 77,78 | Low |

**Q1-**Were gluten-free products, naturally gluten-free foods, and/or meals in food services indicated?

**Q2-** Was the method of analysis indicated?

**Q3-** Was the method used in the analysis required or validated by Codex Alimentarius, FDA, AOCA and/or AACC?

**Q4-** Was the method of gluten extraction well described in the method section of the study ?

**Q5-** Was the prevalence of contaminated foods reported?

**Q6-** Was the prevalence of contaminated foods above 20 mg/kg reported?

**Q7-** Were the major types of contaminated foods reported?

**Q8-** Was the year of the study indicated in the full-text?

**Q9-** Has the study received any funding source?