

## Supplementary file S5 – Excluded studies

### Reasons for exclusion:

1. No full text available
2. Not written in English
3. Wrong publication type (conference abstract, review, expert opinion, case reports)
4. No outcome of interest (Phe levels, Tyr levels, dietary intake and other surrogate markers)
5. Wrong study design (cross-sectional study, cross-sectional data for outcome of interest)
6. No quantitative data / insufficient data
7. No dietary liberalization

Study / Year	Reason for exclusion
Aldámiz-Echevarría 2015 [1]	Overlapping study data
Anjema 2013 [2]	No outcome of interest
Anjema 2016 [3]	No outcome of interest
Baldellou Vazquez 2006 [4]	No full text available, Not written in English
Bélanger-Quintana 2005 [5]	No outcome of interest
Boveda 2007 [6]	No outcome of interest
Bushueva 2014 [7]	No full text available, Not written in English
Burlina 2009 [8]	No outcome of interest
Burton 2007 [9]	No outcome of interest
Burton 2010 [10]	No outcome of interest
Burton 2011 [11]	No outcome of interest
Burton 2015 [12]	No dietary liberalization
Campistol 2012 [13]	No full text available, Not written in English
Cazzorla 2014 [14]	Wrong study design (cross-sectional)
Christ 2013 [15]	No dietary liberalization
Clocksinn 2021 [16]	No dietary liberalization
Cohen-Pfeffer 2015 [17]	Wrong publication type (SSIEM conference abstract)
Couce 2012 [18]	Wrong study design (only current IQ)
Doggrell 2008 [19]	Wrong publication type (expert opinion)
Douglas 2013 [20]	No outcome of interest
Evans 2017 [21]	Wrong study design (cross-sectional)
Feillet 2014 [22]	Wrong publication type (MPKU cases)
Ficicioglu 2013 [23]	No dietary liberalization
Gassio 2010 [24]	Wrong study design (cross-sectional)
Grange 2014 [25]	Wrong publication type (MPKU cases)
Hennermann 2005 [26]	No quantitative data / insufficient data
Hennermann 2012 [27]	No outcome of interest
Huijbregts 2018 [28]	Wrong study design (cross-sectional)
Humphrey 2011 [29]	No outcome of interest
Kagnici 2014 [30]	Wrong publication type (SSIEM conference abstract)
Keil 2013 [31]	No quantitative data / insufficient data
Kör 2017 [32]	No outcome of interest

Lee 2008 [33]	No outcome of interest
Leuret 2012 [34]	No outcome of interest
Levy 2007 [35]	No outcome of interest
Lindegren 2013 [36]	No outcome of interest (systematic review)
Longo 2015 [37]	Overlapping study data
Longo 2015 [38]	No outcome of interest
Moseley 2015 [39]	No dietary liberalization
Muntau 2002 [40]	No outcome of interest
Muntau 2014 [41]	Wrong publication type (SSIEM conference abstract)
Muntau 2016 [42]	Wrong publication type (SSIEM conference abstract)
Muntau 2017 [43]	Overlapping study data
Ormazabal 2005 [44]	No outcome of interest
Prasad 2013 [45]	Wrong publication type (ICIEM conference abstract)
Qu 2019 [46]	No outcome of interest (meta-analysis)
Rutsch 2018 [47]	Wrong publication type (SSIEM conference abstract)
Shintaku 2004 [48]	No outcome of interest
Shintaku 2005 [49]	No full text available, Not written in English
Shintaku 2014 [50]	No outcome of interest
Singh 2011 [51]	No outcome of interest
Somaraju 2009 [52]	No outcome of interest (systematic review)
Somaraju 2010 [53]	No outcome of interest (systematic review)
Somaraju 2012 [54]	No outcome of interest (systematic review)
Somaraju 2015 [55]	No outcome of interest (systematic review)
Sousa Barbossa 2018 [56]	No outcome of interest
Stockler-Ipsiroglu 2015 [57]	No outcome of interest
Tamura 2022 [58]	No quantitative data / insufficient data
Thiele 2013 [59]	No outcome of interest
Thiele 2015 [60]	No outcome of interest
Trefz 2005 [61]	No quantitative data / insufficient data
Trefz 2009 [62]	No outcome of interest
Trefz 2010 [63]	No outcome of interest
Trefz 2015 [64]	No quantitative data / insufficient data
Ünal 2015 [65]	No outcome of interest
Van Vliet 2015 [66]	No outcome of interest
Vernon 2010 [67]	No outcome of interest
Waisbren 2021 [68]	No dietary liberalization
Wang 2007 [69]	No outcome of interest
White 2013 [70]	No dietary liberalization
Yano 2016 [71]	No outcome of interest

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48-hour loading test and genotype,” *Orphanet J. Rare Dis.*, vol. 8, no. 1, 2013.

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