APPENDIX S2: LIST OF EXCLUDED STUDIES WITH RATIONALE

	Authors, year	**Reason for exclusion**
1.	Ahmadi et al., 2018[1]	Review (no primary data)
2.	Akutsu et al., 2005[2]	No alternative biomarkers
3.	Baez and Cochon, 2017[3]	Review (no primary data)
4.	Barry and Coughlan, 2019[4] (abstract)	No alternative biomarkers
5.	Cakir et al., 2021[5]	Case-control (control - healthy volunteers)
6.	Chen et al., 2023[6]	Review (no primary data)
7.	Cheng et al., 2020[7]	Case-control (control - not described)
8.	Deng et al., 2023[8]	No alternative biomarkers
9.	Derksen et al., 2018 (abstract)[9]	No alternative biomarkers
10.	Dong et al., 2017a[10]	Case-control (selected controls with alternative diagnoses or healthy volunteers)
11.	Dong et al., 2017b[11]	Case-control (selected controls with alternative diagnoses or healthy volunteers)
12.	Duceau et al., 2020[12]	No alternative biomarkers
13.	Eggebrecht et al., 2004[13]	Case-control (selected control with other pathology [chest-pain; pulmonary embolism acute myocardial infarction and asymptomatic with chronic aortic dissection] not suspected AAS)
14.	Ersel et al., 2010[14]	No alternative biomarkers
15.	Fan et al., 2010[15]	No alternative biomarkers
16.	Fletcher et al., 2021[16]	Case-control (selected controls with alternative diagnoses)
17.	Forrer et al., 2021[17]	Case-control (selected control with other pathology not suspected AAS)
18.	Gawinecka et al., 2021[18] (abstract)	Abstract of a full text study (Forrer et al., 2021[17])
19.	Giachino et al., 2014[19] (abstract)	No alternative biomarkers
20.	Goliopoulou et al., 2022[20] (abstract)	Case-control (controls - patients with dilated aorta or other cardiac surgery)
21.	Gorla et al., 2017a[21]	No alternative biomarkers
22.	Gorla et al.,2017b[22]	No alternative biomarkers
23.	Guo et al., 2013[23]	No alternative biomarkers

24.	Hagiwara et al., 2010[24] (abstract)	Case-control (controls -patients with other cardiovascular conditions)
25.	Hagiwara et al., 2013[25]	Case-control (selected control with other pathology not suspected AAS)
26.	Han et al., 2021[26]	Case-control (control - healthy volunteers)
27.	Hashemi et al., 2021[27] (abstract)	No alternative biomarkers
28.	Hazui et al., 2005[28]	Case-control (control - patients with acute myocardial infarction)
29.	Inaba et al., 2018[29] (abstract)	No alternative biomarkers
30.	Jiang et al., 2022[30]	Case-control (control - healthy volunteers)
31.	Kaito et al., 2022[31]	No alternative biomarkers
32.	Khan et al., 2023[32]	No alternative biomarkers
33.	Kodera and Kanda, 2016[33] (abstract)	No alternative biomarkers
34.	Konig et al., 2021[34]	Case-control (control - healthy volunteers)
35.	Konig et al., 2021 (abstract)[35]	Abstract of a full text study (Konig et al., 2021[34])
36.	Kotani et al., 2017[36]	No alternative biomarkers
37.	Lee et al., 2022[37]	No alternative biomarkers
38.	Levcik et al., 2013[38]	No alternative biomarkers
39.	Li et al., 2010[39] (abstract)	No alternative biomarkers
40.	Li et al., 2017[40]	No alternative biomarkers
41.	Li et al., 2018[41]	Case-control (control - healthy volunteers)
42.	Li et al., 2022[42]	Case-control (control - healthy volunteers)
43.	Liu et al., 2018[43]	Case-control (selected controls did not have symptoms suggesting AAS)
44.	Liu et al., 2022[44]	No alternative biomarkers
45.	Lovy et al., 2013[45]	No alternative biomarkers
46.	Lu et al., 2022[46]	Case-control (control - healthy volunteers)
47.	McLatchie et al., (unpublished)[47]	No alternative biomarkers
48.	Morello et al., 2017[48] (abstract)	No alternative biomarkers
49.	Morello et al., 2021[49]	No alternative biomarkers
50.	Morello et al., 2023[50]	All patients have AAS
51.	Nazerian et al., 2013[51] (abstract)	No alternative biomarkers
52.	Nazerian et al., 2014a[52]	No alternative biomarkers
53.	Nazerian et al., 2014b[53]	No alternative biomarkers

54.	Nazerian et al., 2018[54]	No alternative biomarkers
55.	Nazerian et al., 2018[55] (abstract)	No alternative biomarkers
56.	Ohle et al., 2017[56] (abstract)	Duplicate
57.	Ohle et al., 2018a[57] (abstract)	No alternative biomarkers
58.	Ohle et al., 2018b[58]	Case-control (unselected controls with suspected AAS)
59.	Ohle et al., 2019[59]	No alternative biomarkers
60.	Ohle et al., 2019[60] (abstract)	No alternative biomarkers
61.	Ohle et al., 2023[61]	No alternative biomarkers
62.	Ohlmann et al., 2006[62]	Case-control (unselected controls with suspected AAS)
63.	Okazaki et al., 2014[63]	Case-control (selected controls with other pathology not suspected AAS)
64.	Paige et al., 2020[64] (abstract)	Duplicate
65.	Pan et al., 2021[65]	Case-control (selected controls with alternative diagnoses or healthy volunteers)
66.	Qiming et al., 2010[66] (abstract)	No alternative biomarkers
67.	Reeps et al., 2010[67]	All patients have AAS
68.	Rotella et al., 2018[68]	No alternative biomarkers
69.	Sakamoto et al., 2011[69]	No alternative biomarkers
70.	Sakamoto et al., 2016[70]	Population/cases are stroke not suspected AAS
71.	Sbarouni et al., 2007[71]	Case-control (selected controls with alternative diagnoses or healthy volunteers)
72.	Sbarouni et al., 2015[72]	Case-control (selected controls with alternative diagnoses or healthy volunteers)
73.	Sbarouni et al., 2018[73]	Case-control (selected controls with alternative diagnoses or healthy volunteers)
74.	Shao et al., 2014[74]	No alternative biomarkers
75.	Shinohara et al., 2003[75]	Case-control (control - healthy volunteers and patients with acute myocardial infarction)
76.	Shirakabe et al., 2008[76]	No alternative biomarkers
77.	Song et al., 2022[77]	Case-control (control - healthy volunteers and patients with acute coronary syndrome)
78.	Song et al., 2023[78]	No alternative biomarkers
79.	Spinner et al., 2006[79] (abstract)	No alternative biomarkers

80.	Stanojlovic et al., 2013[80] (abstract)	No alternative biomarkers
81.	Suzuki et al., 1996[81]	Case control (controls with myocardial infarction)
82.	Suzuki et al., 2009[82]	No alternative biomarkers
83.	Suzuki et al., 2011[83]	Case-control (selected controls with alternative diagnoses)
84.	Tokuda et al., 2016[84]	No alternative biomarkers
85.	Tokuda et al., 2018[85]	No alternative biomarkers
86.	Wagner et al., 2002[86]	Case-control (selected controls with alternative diagnoses)
87.	Wang et al., 2018[87]	No alternative biomarkers
88.	Weber et al., 2003[88]	No alternative biomarkers
89.	Wei et al., 2012[89] (abstract)	All patients have AAS
90.	Wiegand et al., 2007[90]	All patients have AAS
91.	Wilson et al., 2016[91] (abstract)	No alternative biomarkers
92.	Xiao et al., 2016[92]	Case-control (unselected controls with suspected AAS)
93.	Xu et al., 2017[93]	Case-control (control - not described but appear to be healthy volunteers)
94.	Xu et al., 2022[94]	Case-control (controls with chest pain without acute aortic dissection)
95.	Xue et al., 2007[95]	No alternative biomarkers
96.	Yamashita et al., 2018[96]	No alternative biomarkers
97.	Yoshimuta et al., 2015[97]	Population/cases are stroke not suspected AAS
98.	Yuan et al., 2011[98]	Case-control (selected controls with alternative diagnoses)
99.	Zeng et al., 2020[99]	Case-control (control - healthy volunteers)
100.	Zhang et al., 2023[100]	Case-control (unselected controls with suspected AAS)
101.	Zhang et al., 2023[101]	Duplicate
102.	Zhao et al., 2020[102]	Case-control (controls with myocardial infarction and pulmonary embolism)
103.	Zheng et al., 2012[103] (abstract)	Case-control (control - healthy volunteers and patients with alternate diagnoses) (abstract only)
104.	Zitek et al., 2022[104]	No alternative biomarkers

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