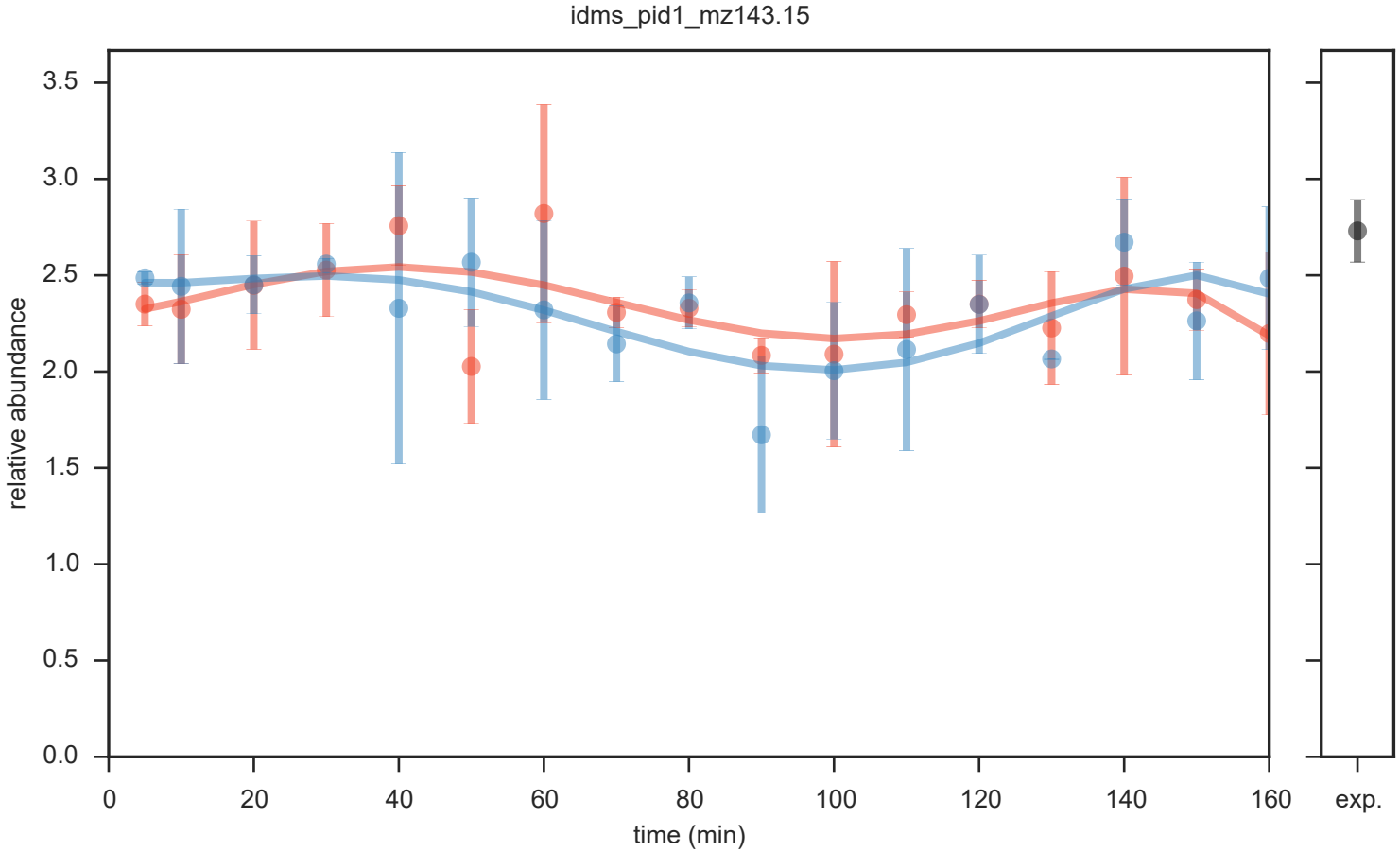
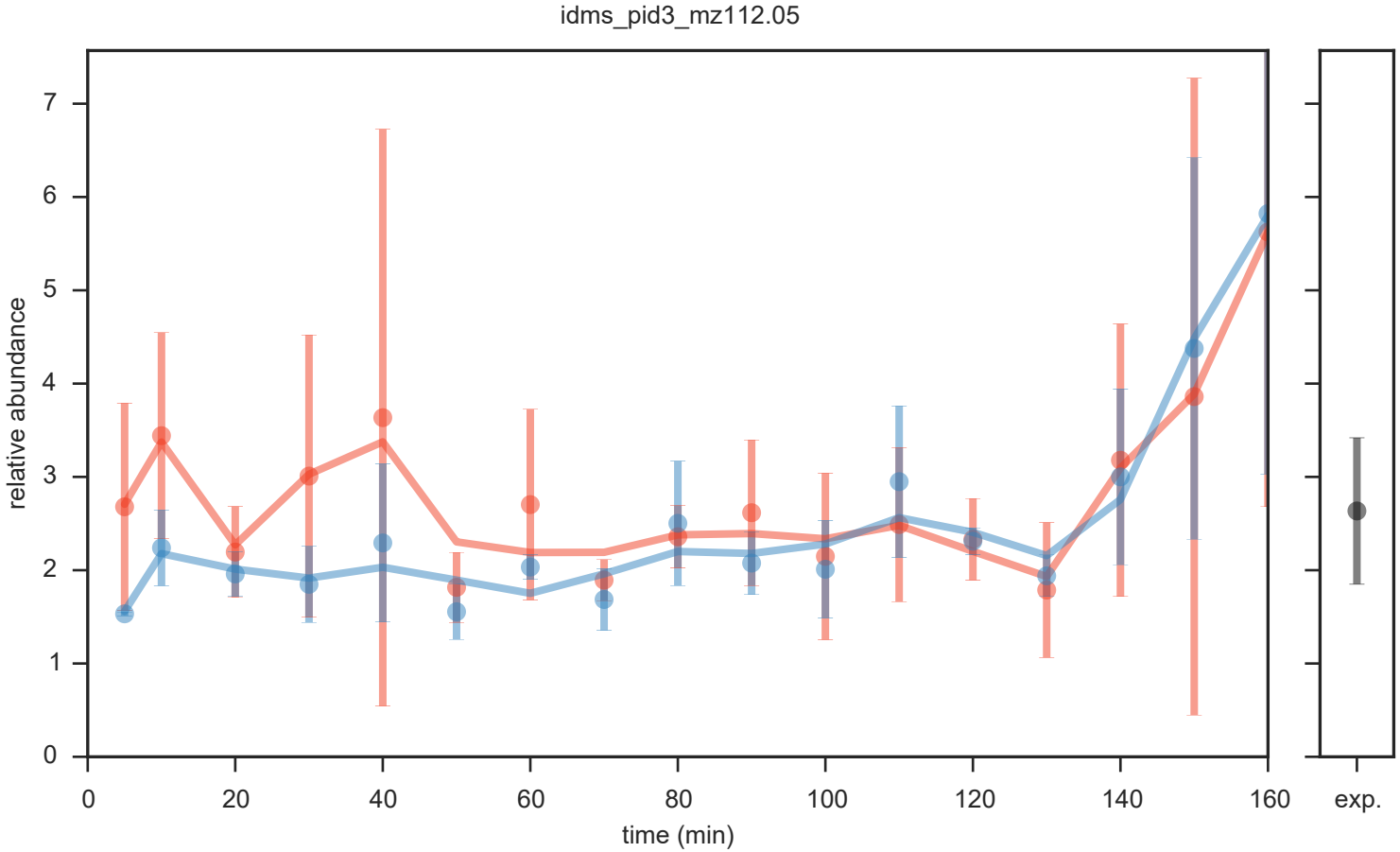
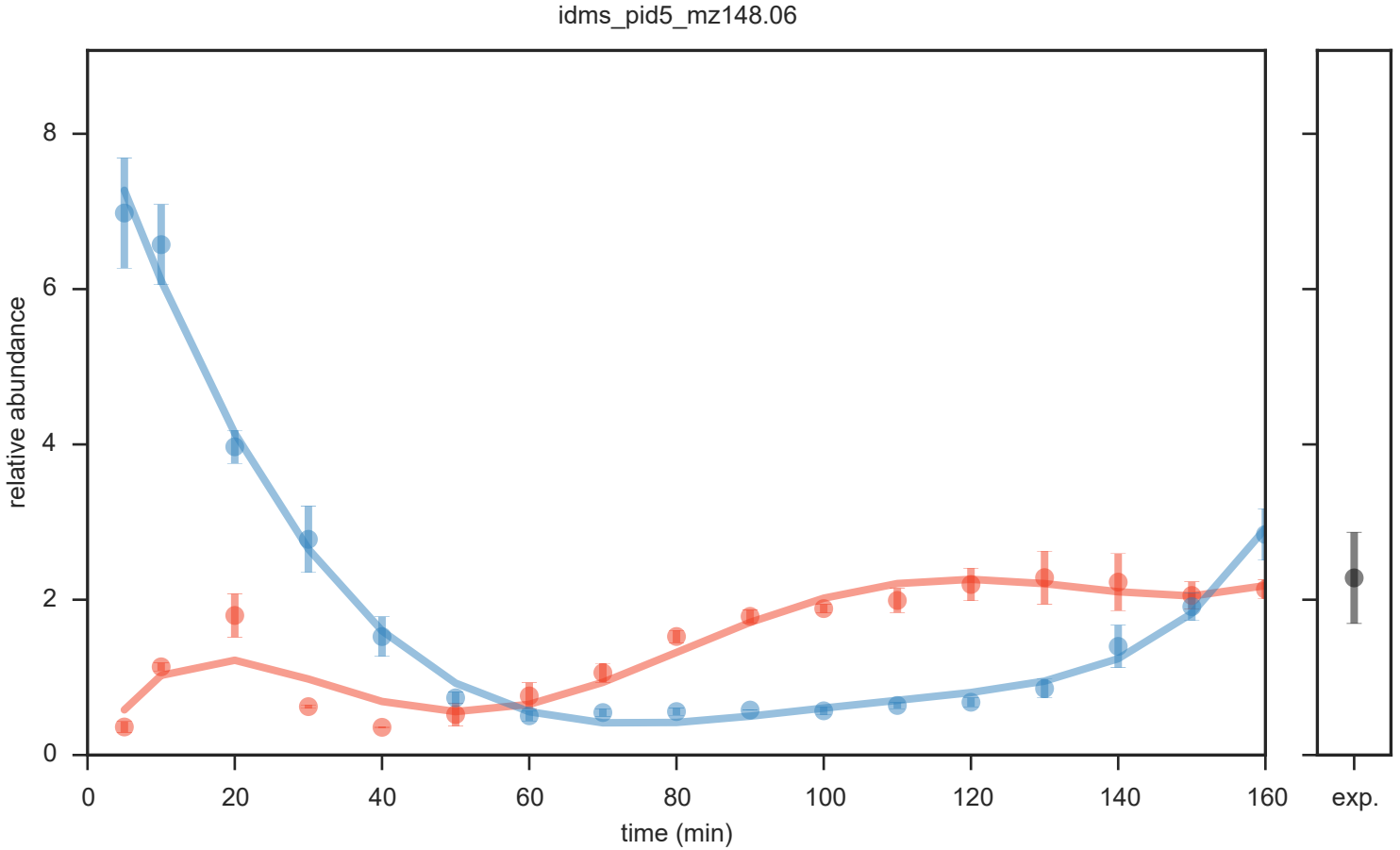
Supplemental Data 2. Metabolite abundance profiles for UHPLC-LTQ data.

Cell-cycle dependent abundance profiles of metabolite features detected via the method UHPLC-LTQ (positive mode); blue profiles are from synchronized, red from control cultures. Mean values +/- SD are shown (3 biological replicates per condition). The time-point (box) labeled "exp" indicates respective exponentially growing pre-cultures (n=6).


idms_pid1_mz143.15
relative abundance
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid3_mz112.05
relative abundance
0
1
2
3
4
5
6
7
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid5_mz148.06
relative abundance
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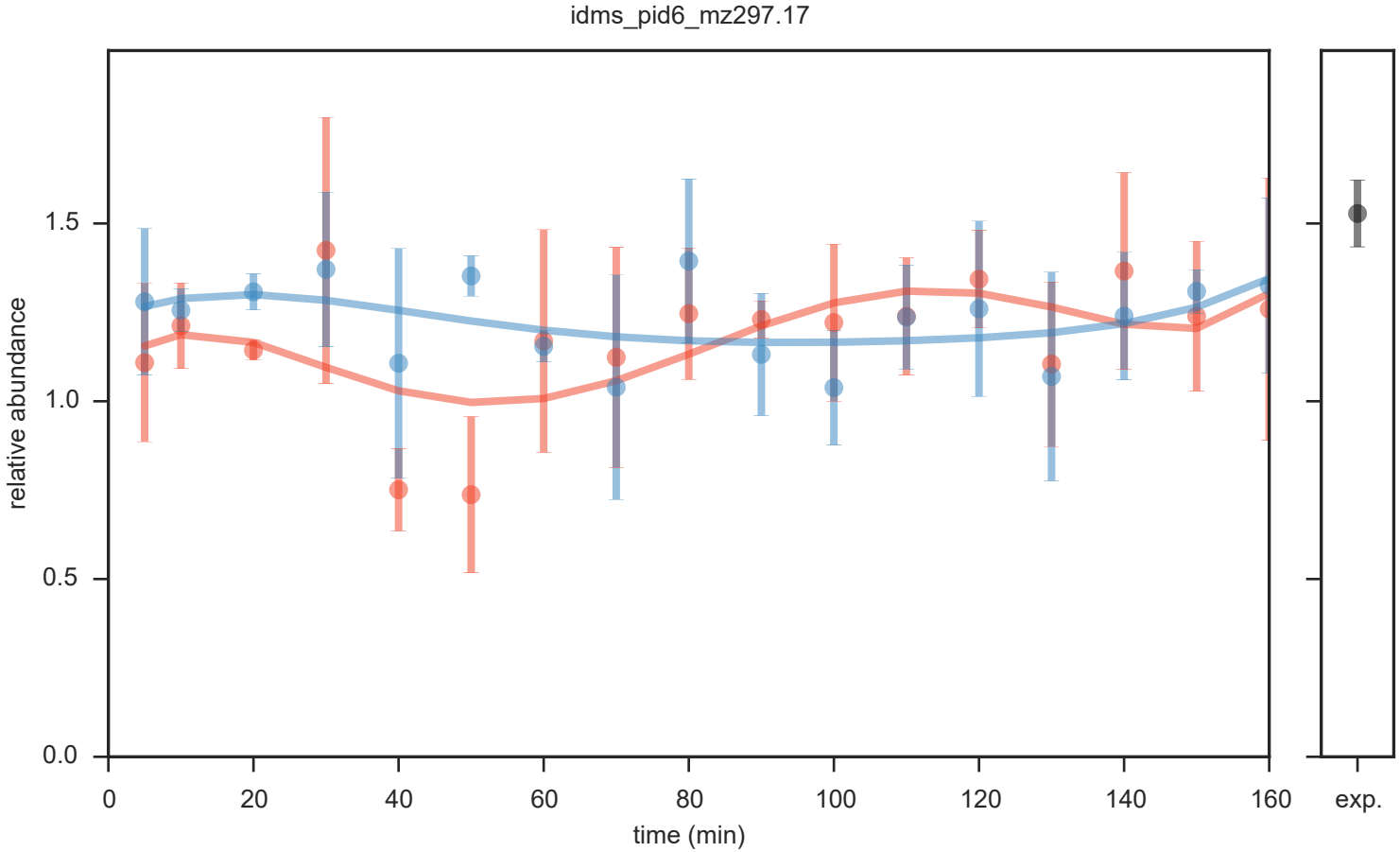
2
4
6
8
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid6_mz297.17
relative abundance
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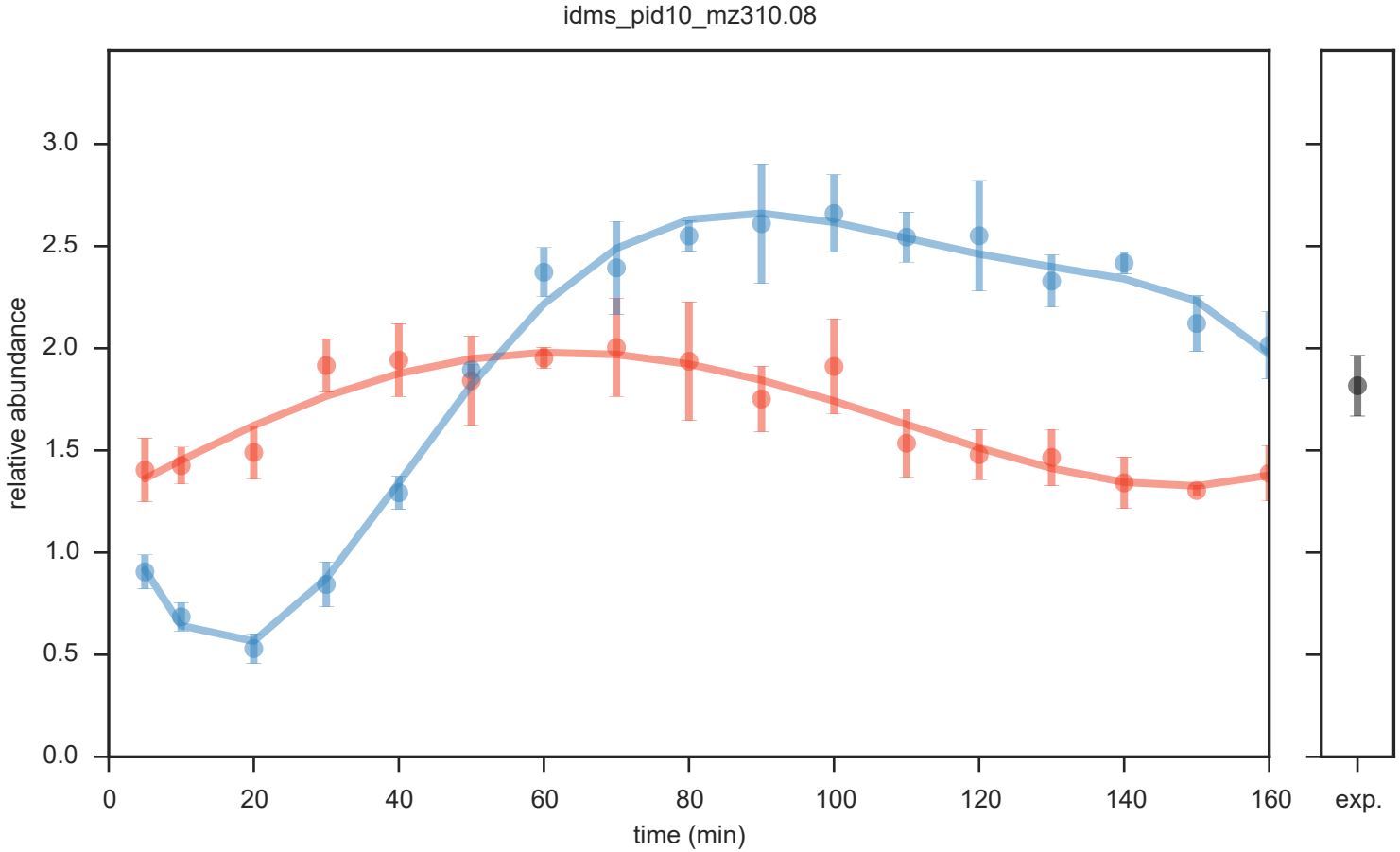
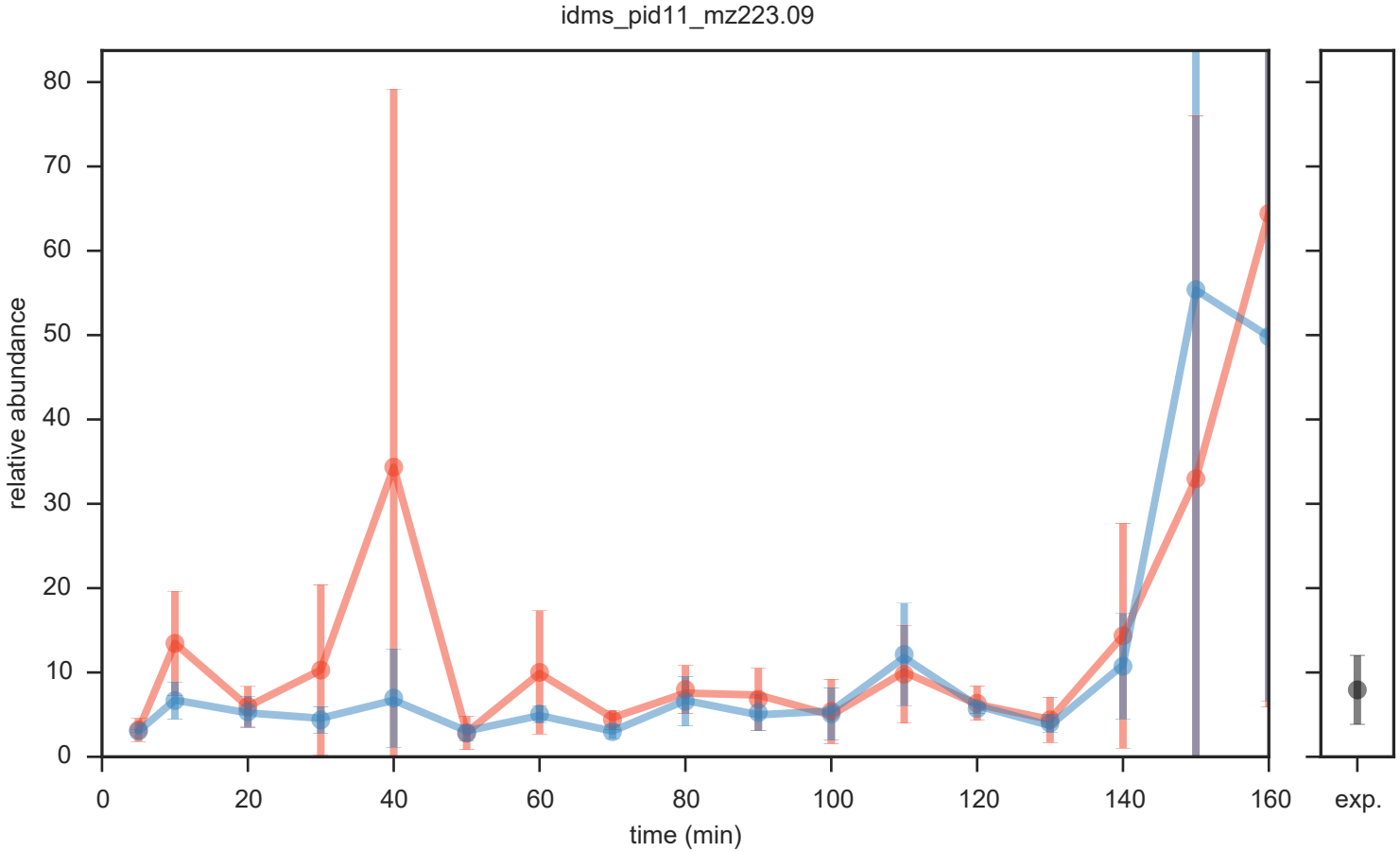
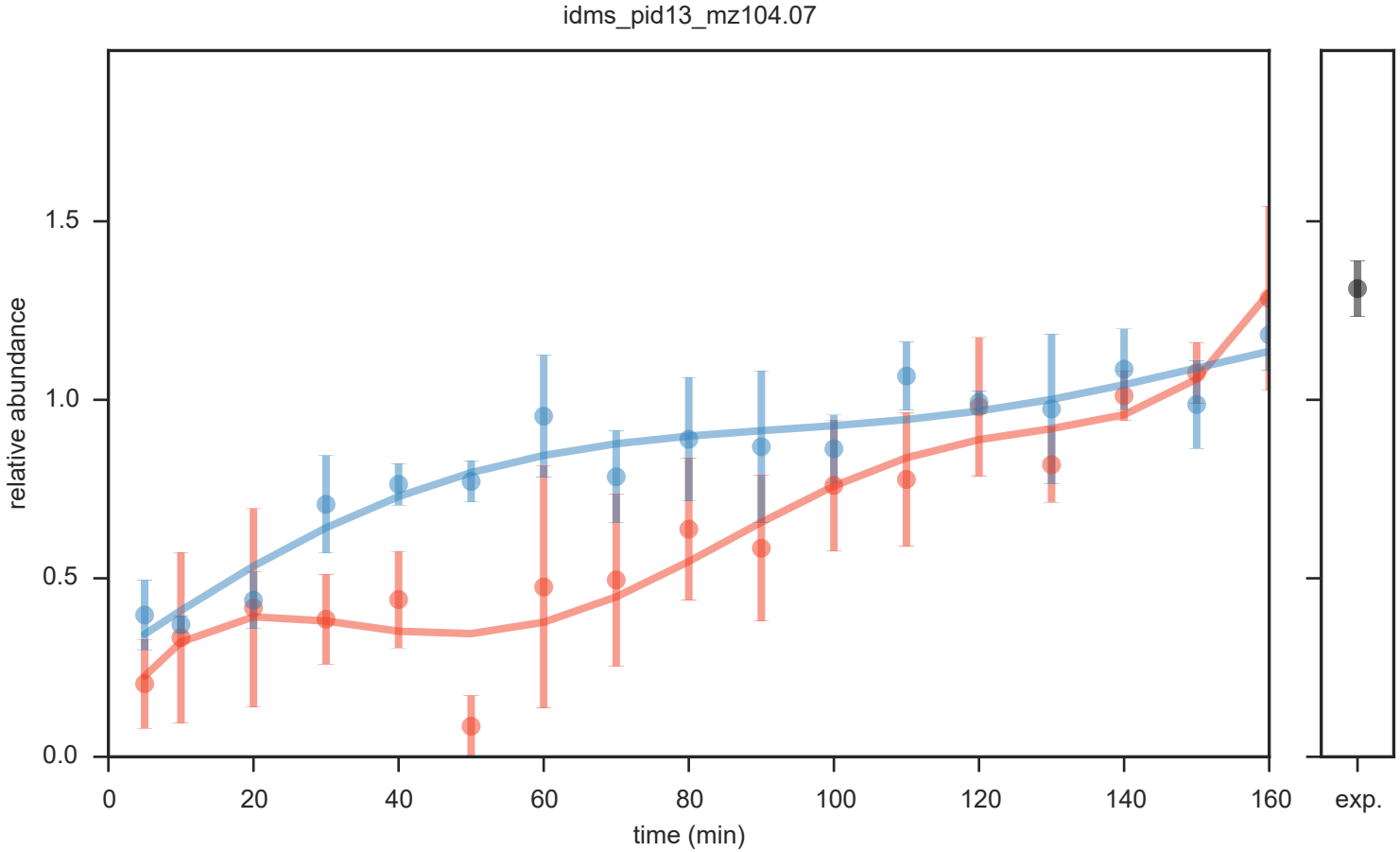
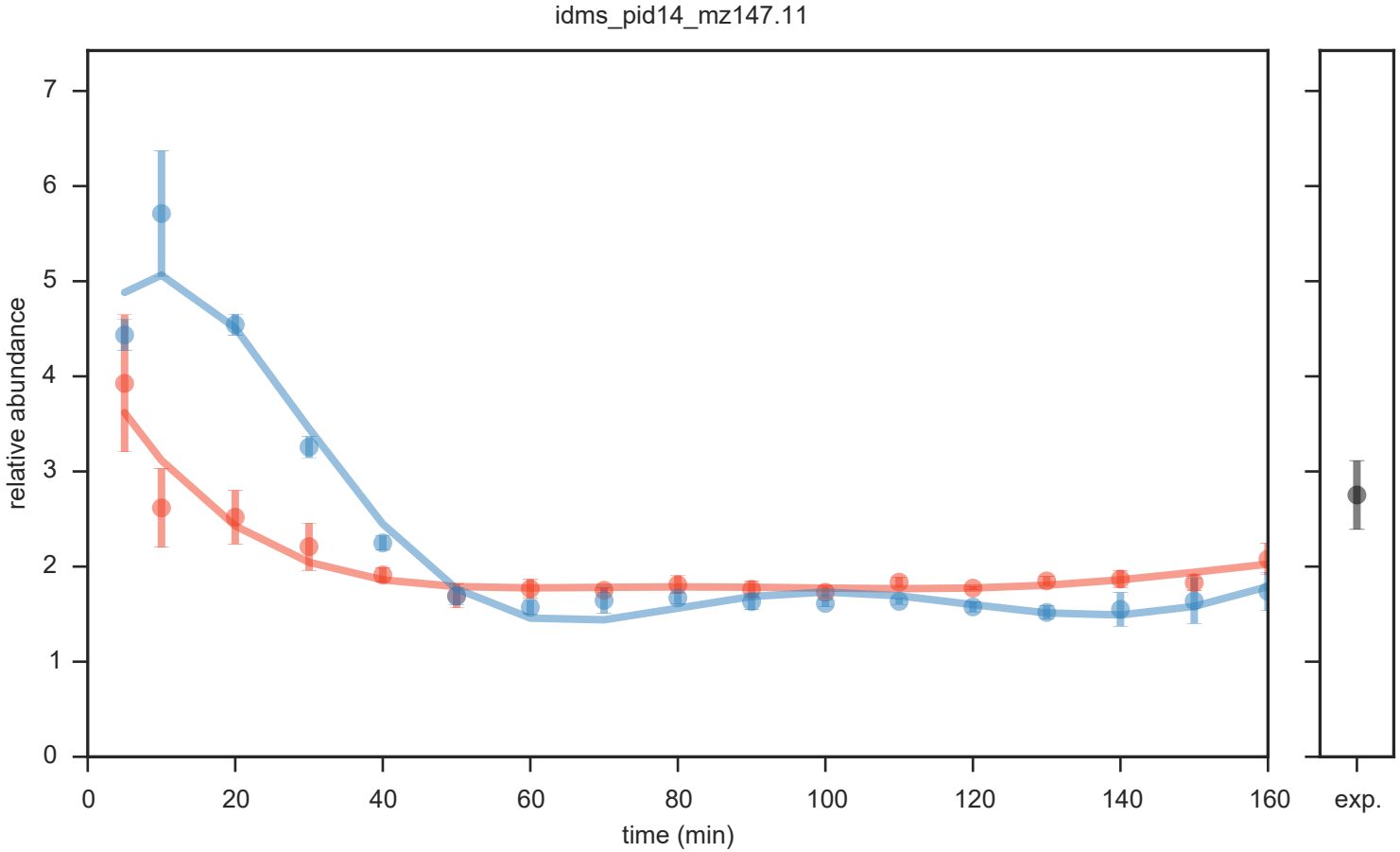
0.5
1.0
1.5
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid10_mz310.08
relative abundance
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid11_mz223.09
relative abundance
0
10
20
30
40
50
60
70
80
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid13_mz104.07
relative abundance
0.0
0.5
1.0
1.5
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid14_mz147.11
relative abundance
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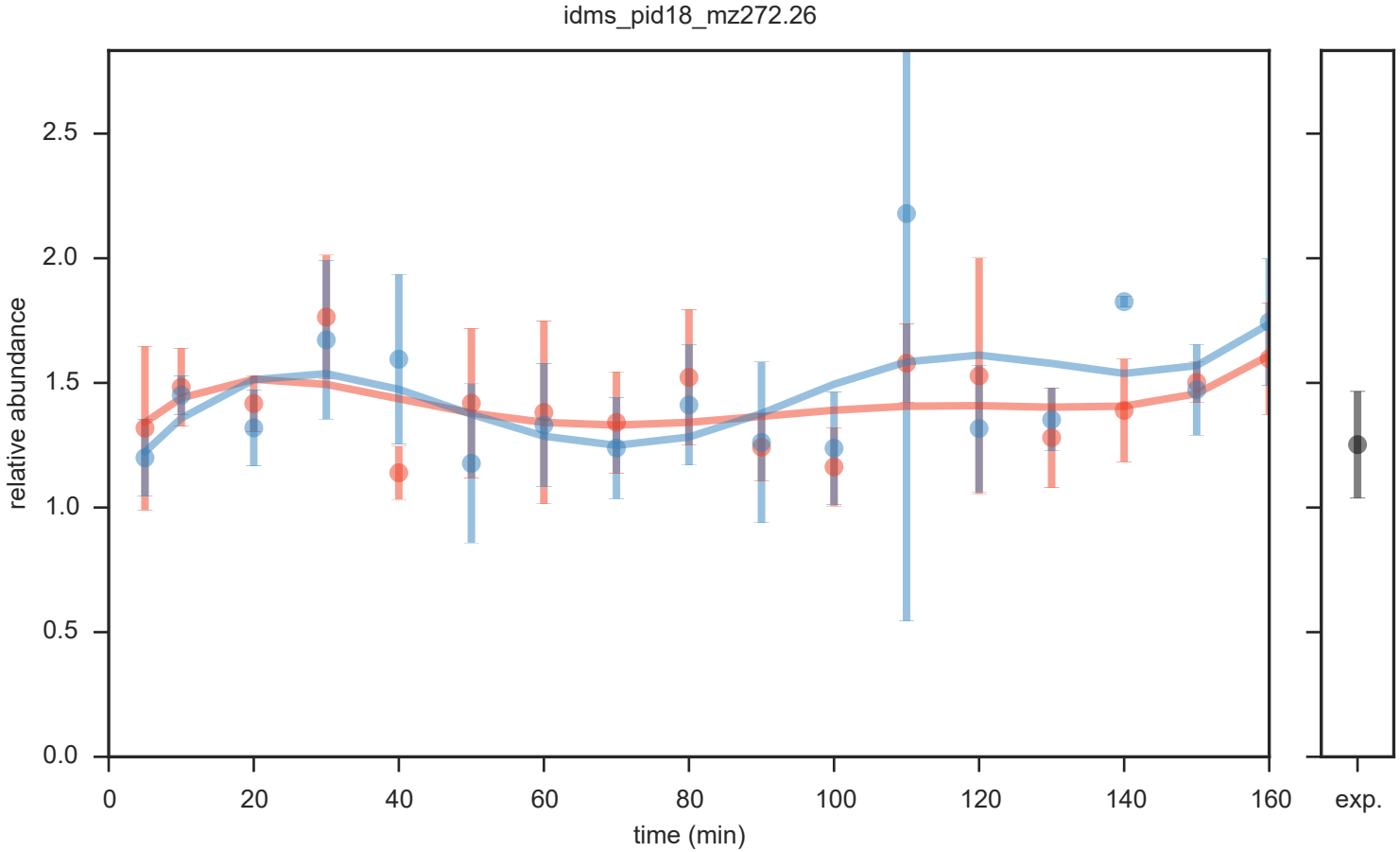
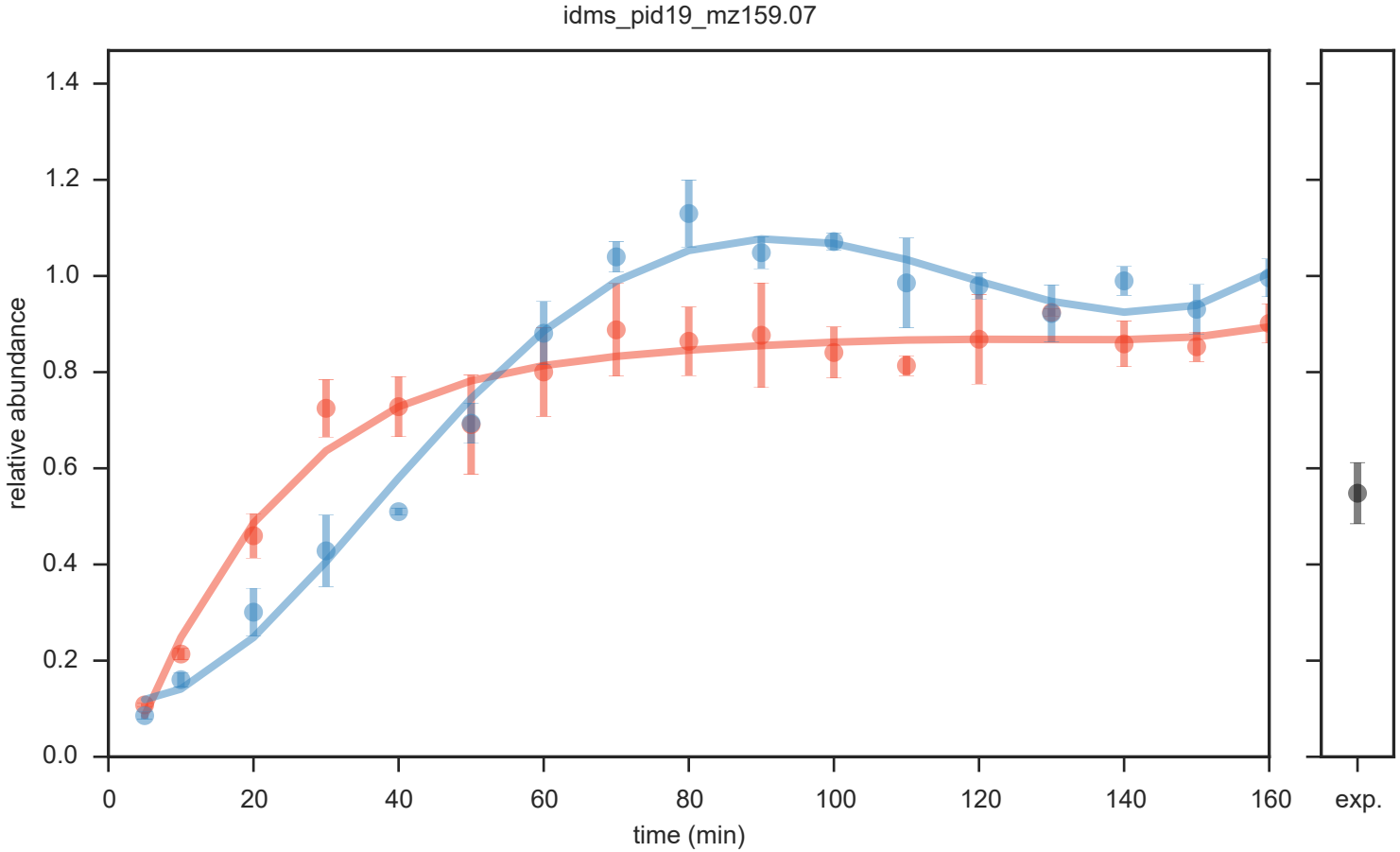
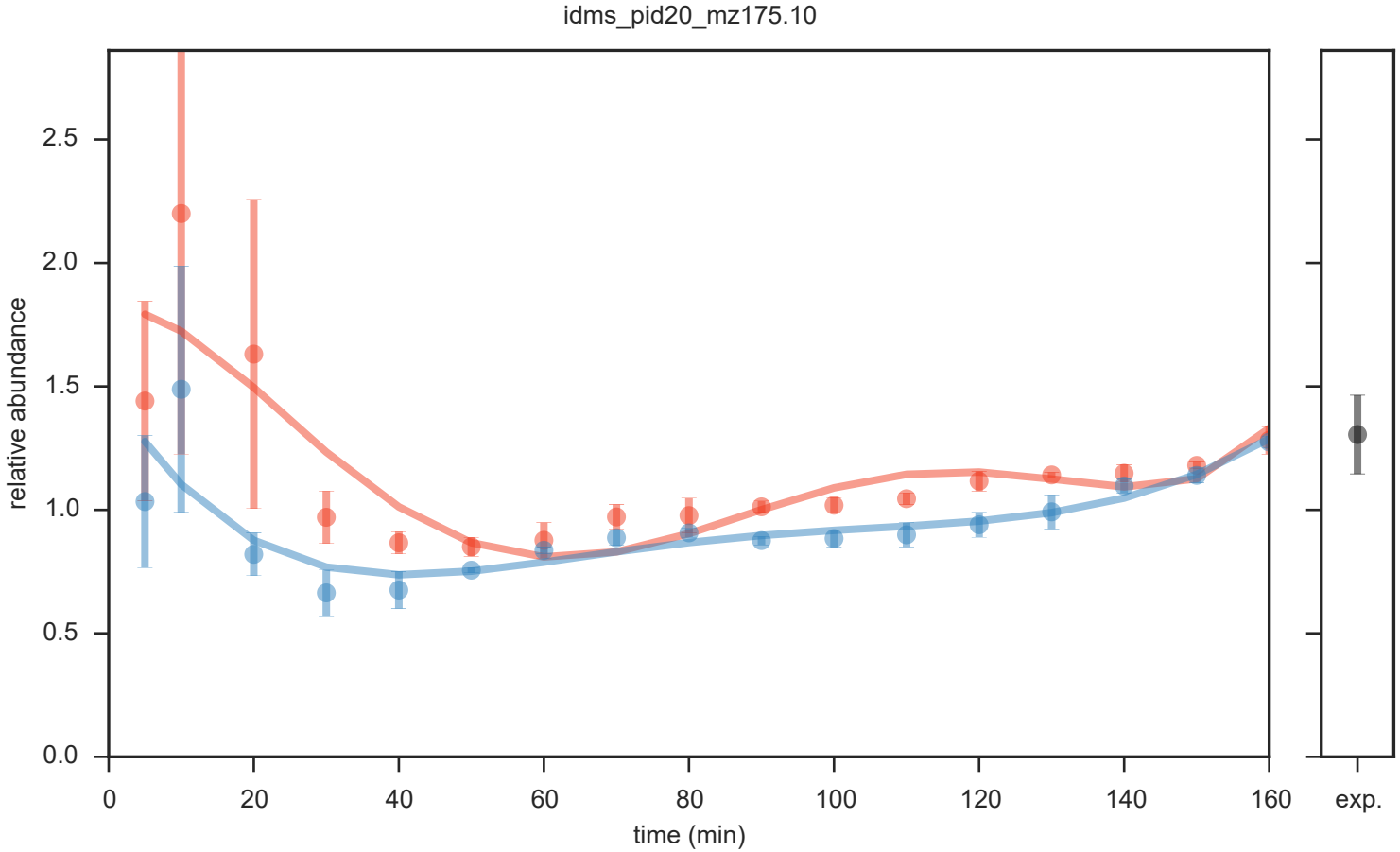
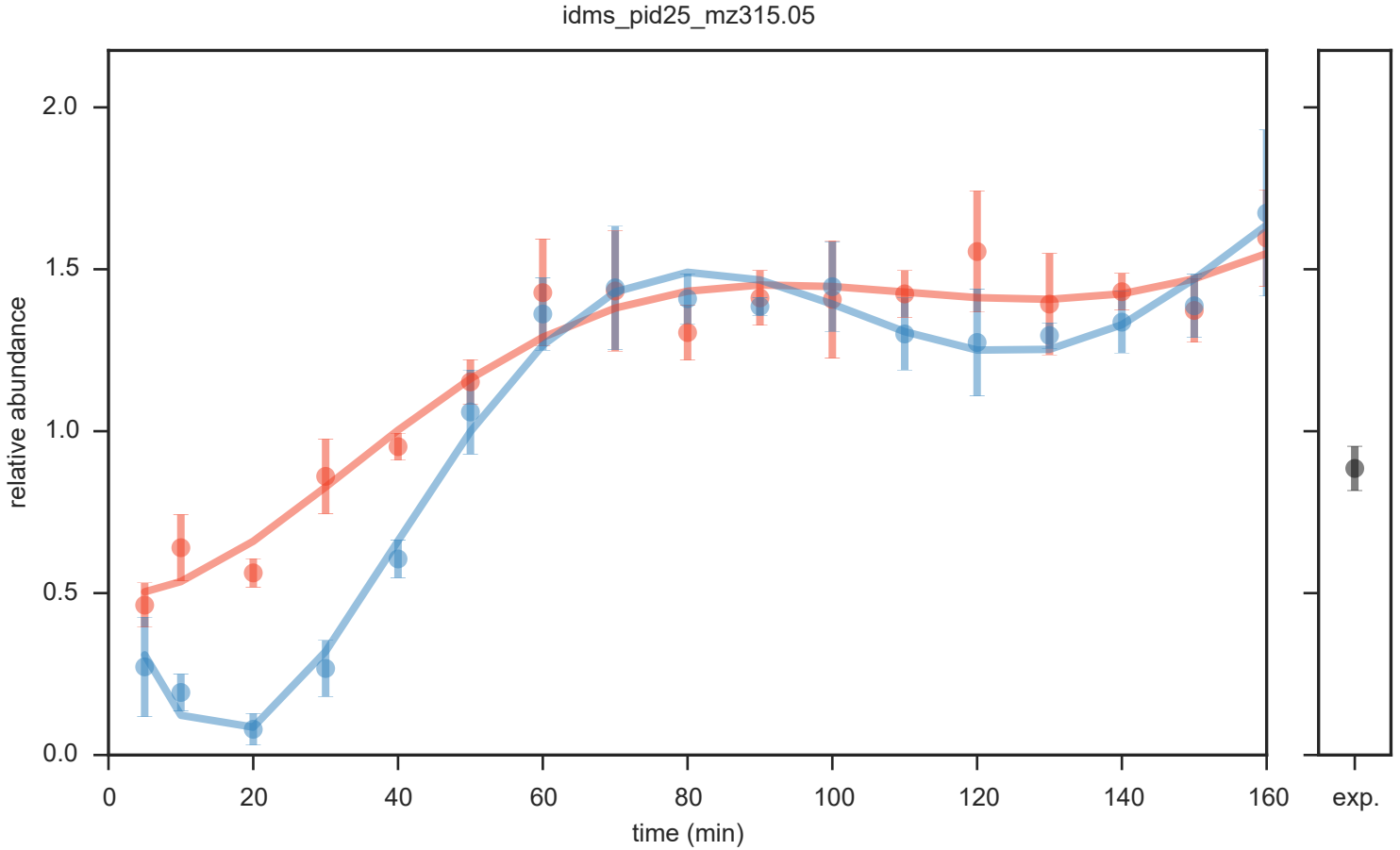
1
2
3
4
5
6
7
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid18_mz272.26
relative abundance
0.0
0.5
1.0
1.5
2.0
2.5
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid19_mz159.07
relative abundance
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid20_mz175.10
relative abundance
0.0
0.5
1.0
1.5
2.0
2.5
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid25_mz315.05
relative abundance
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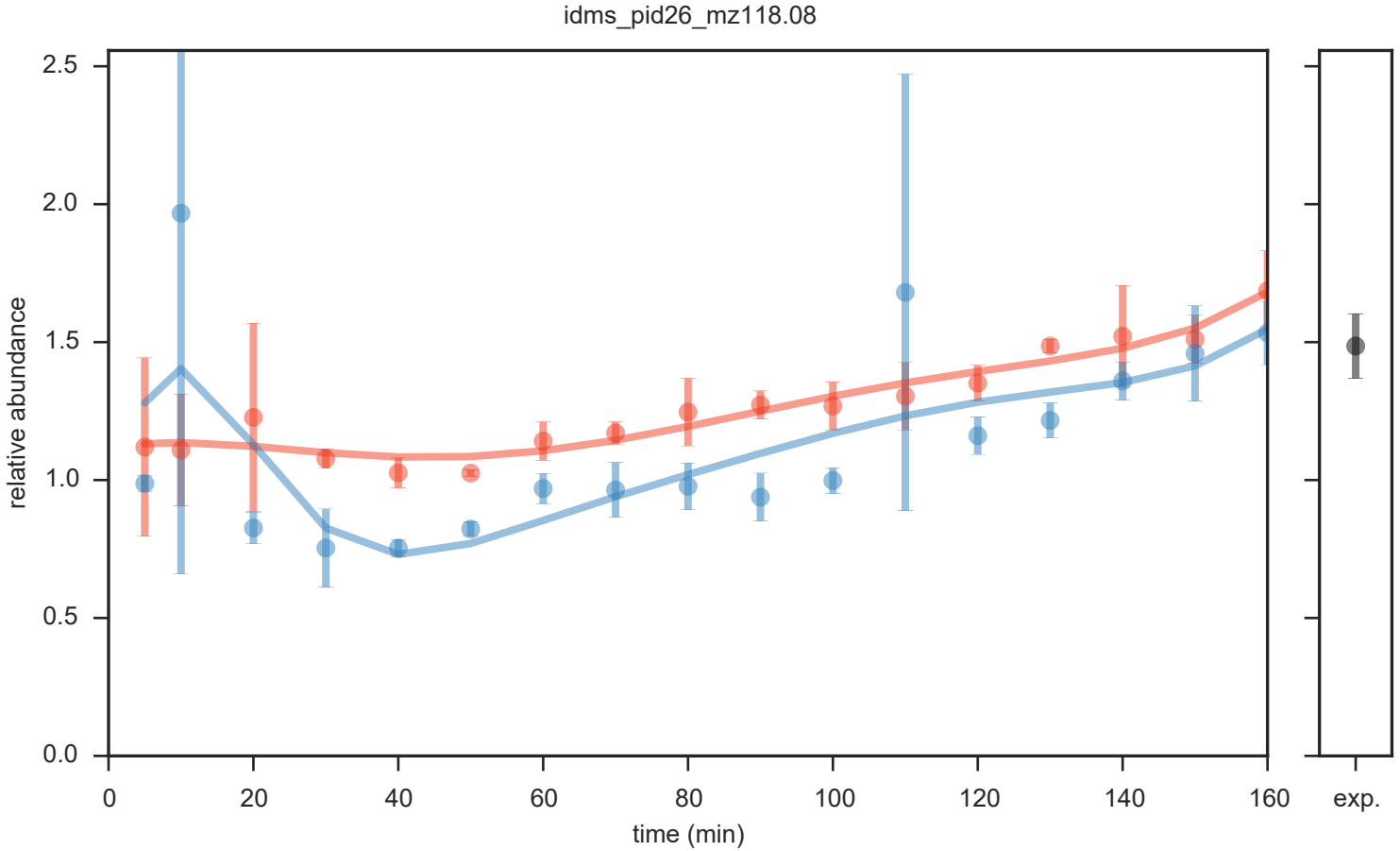
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid26_mz118.08
relative abundance
2.5
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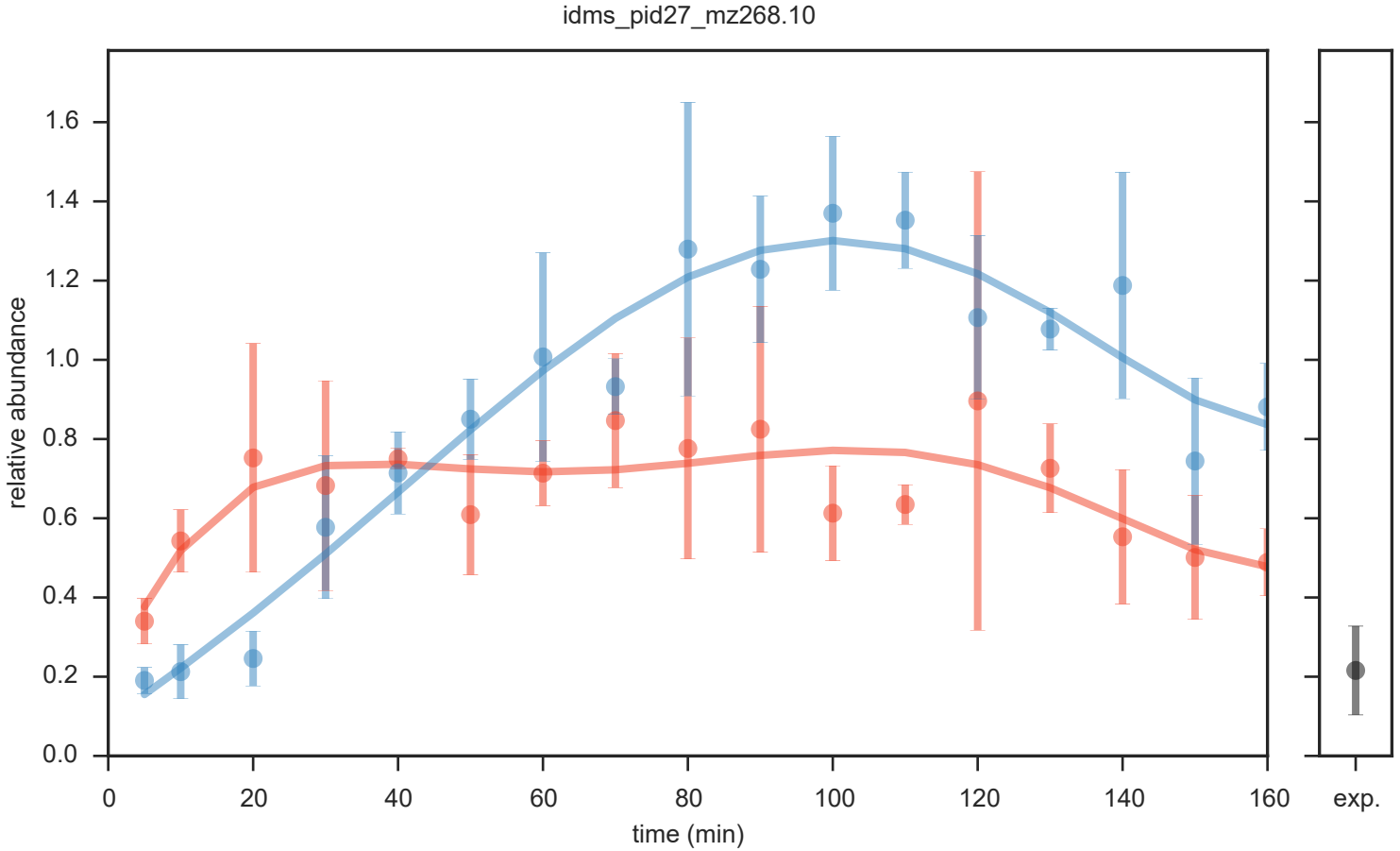
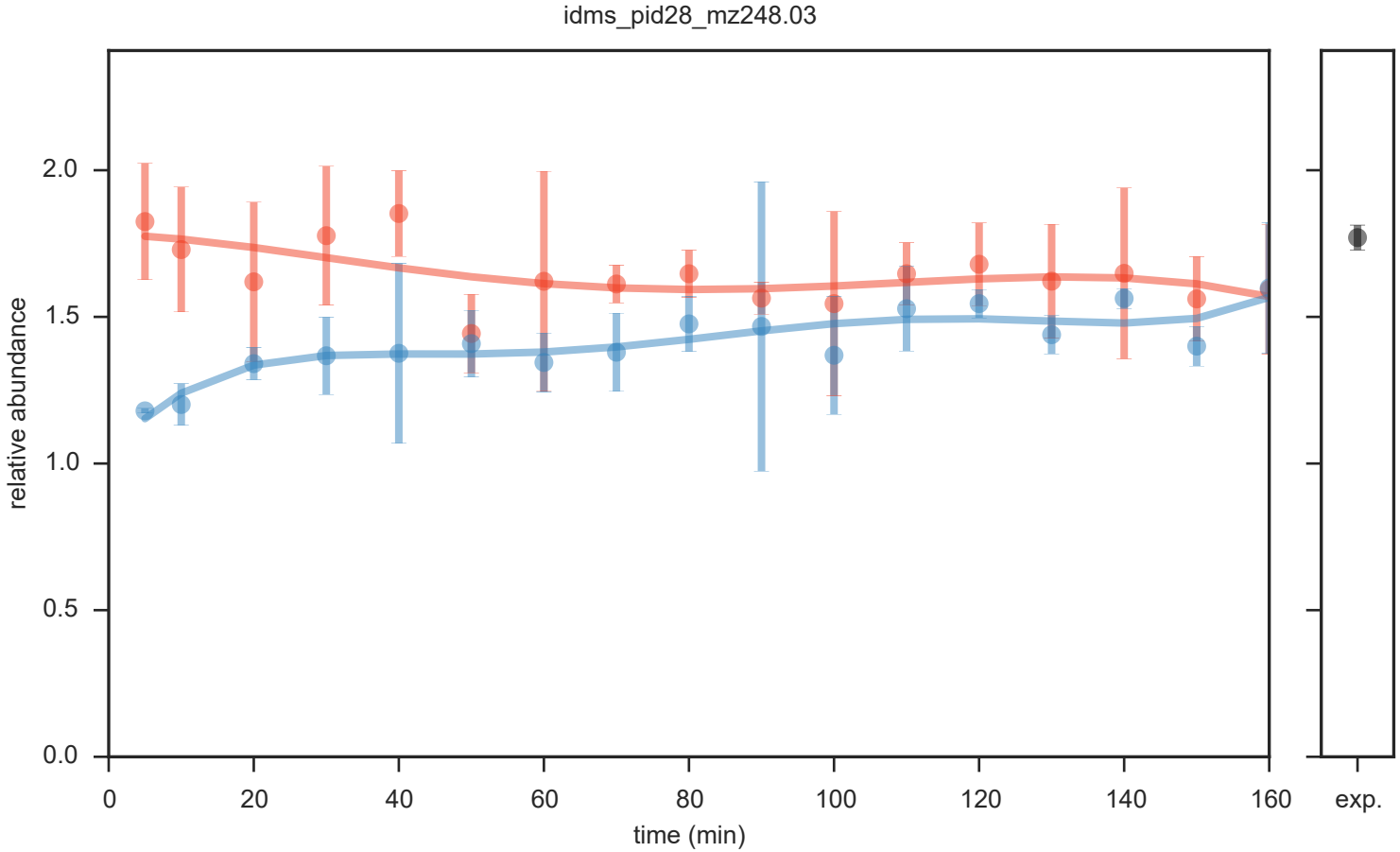
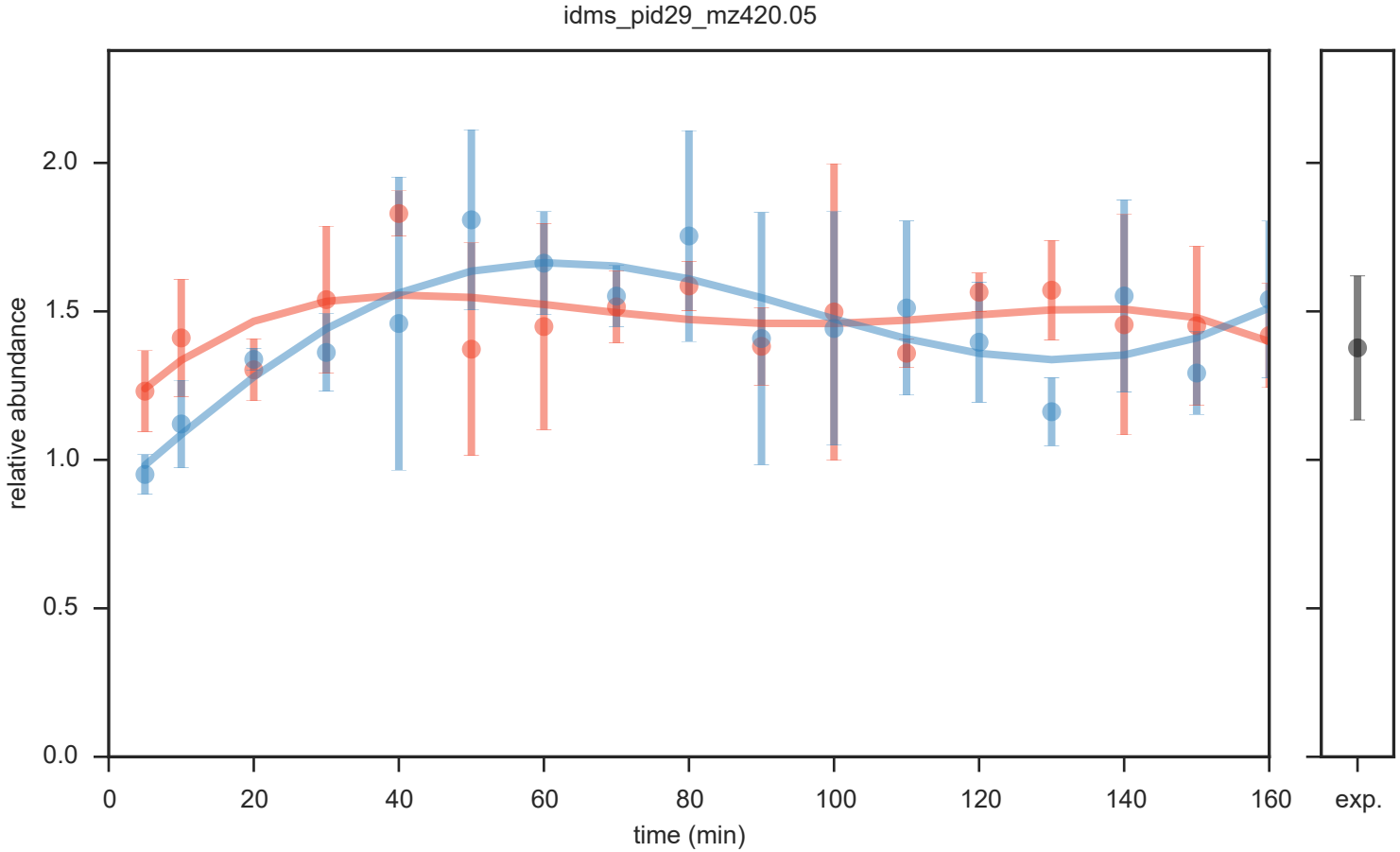
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid27_mz268.10
relative abundance
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid28_mz248.03
relative abundance
0.0
0.5
1.0
1.5
2.0
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid29_mz420.05
relative abundance
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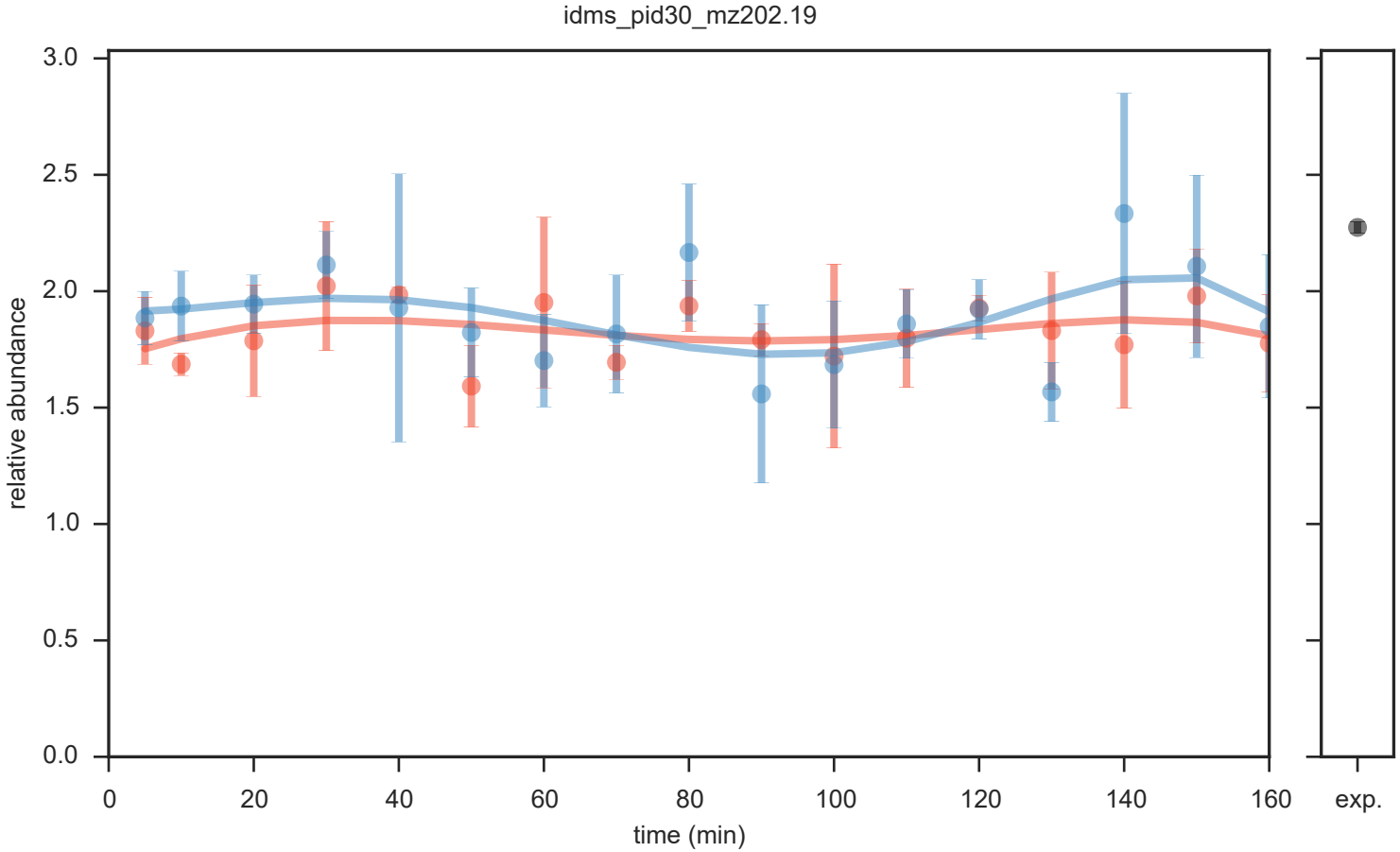
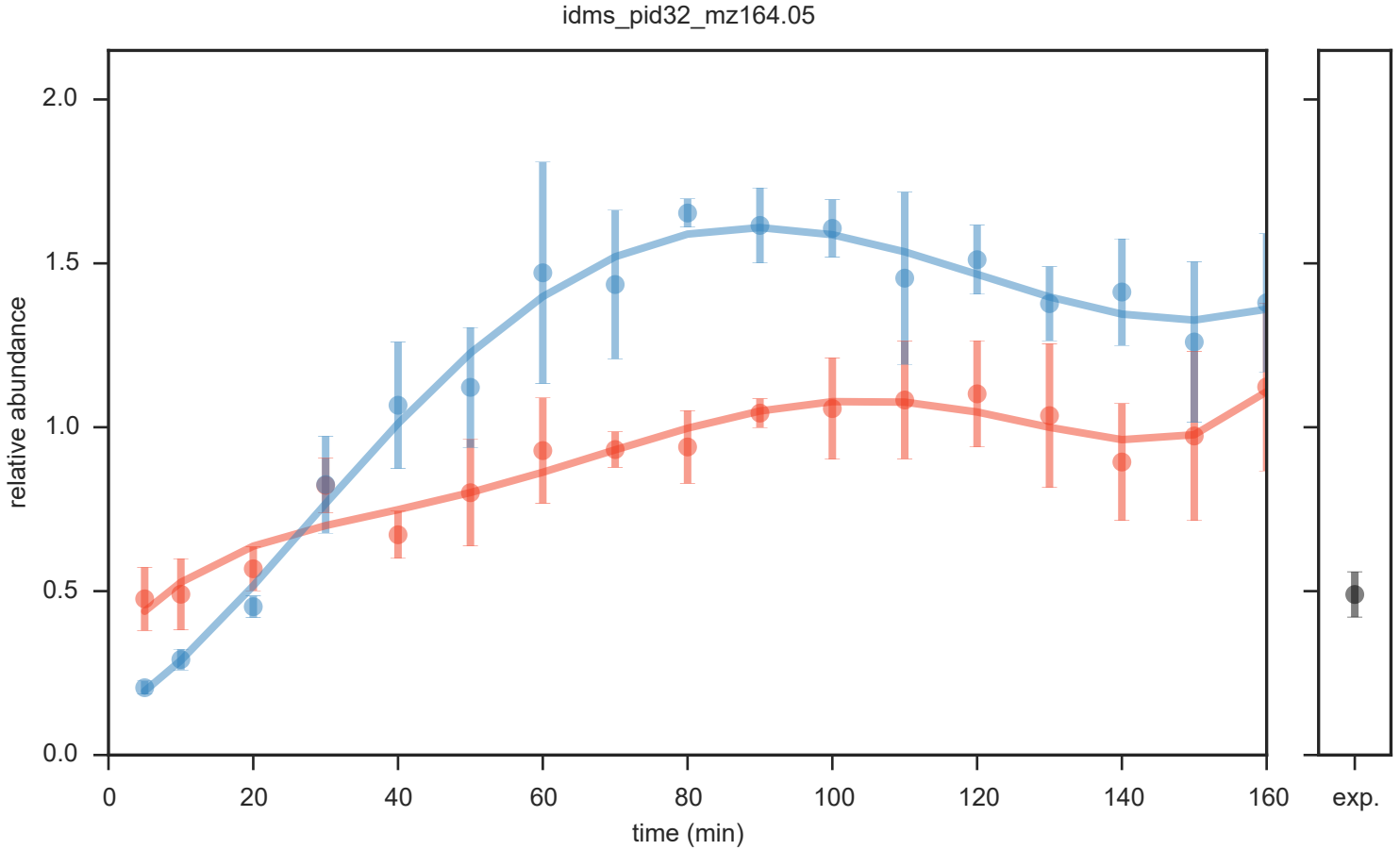
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid30_mz202.19
relative abundance
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid32_mz164.05
relative abundance
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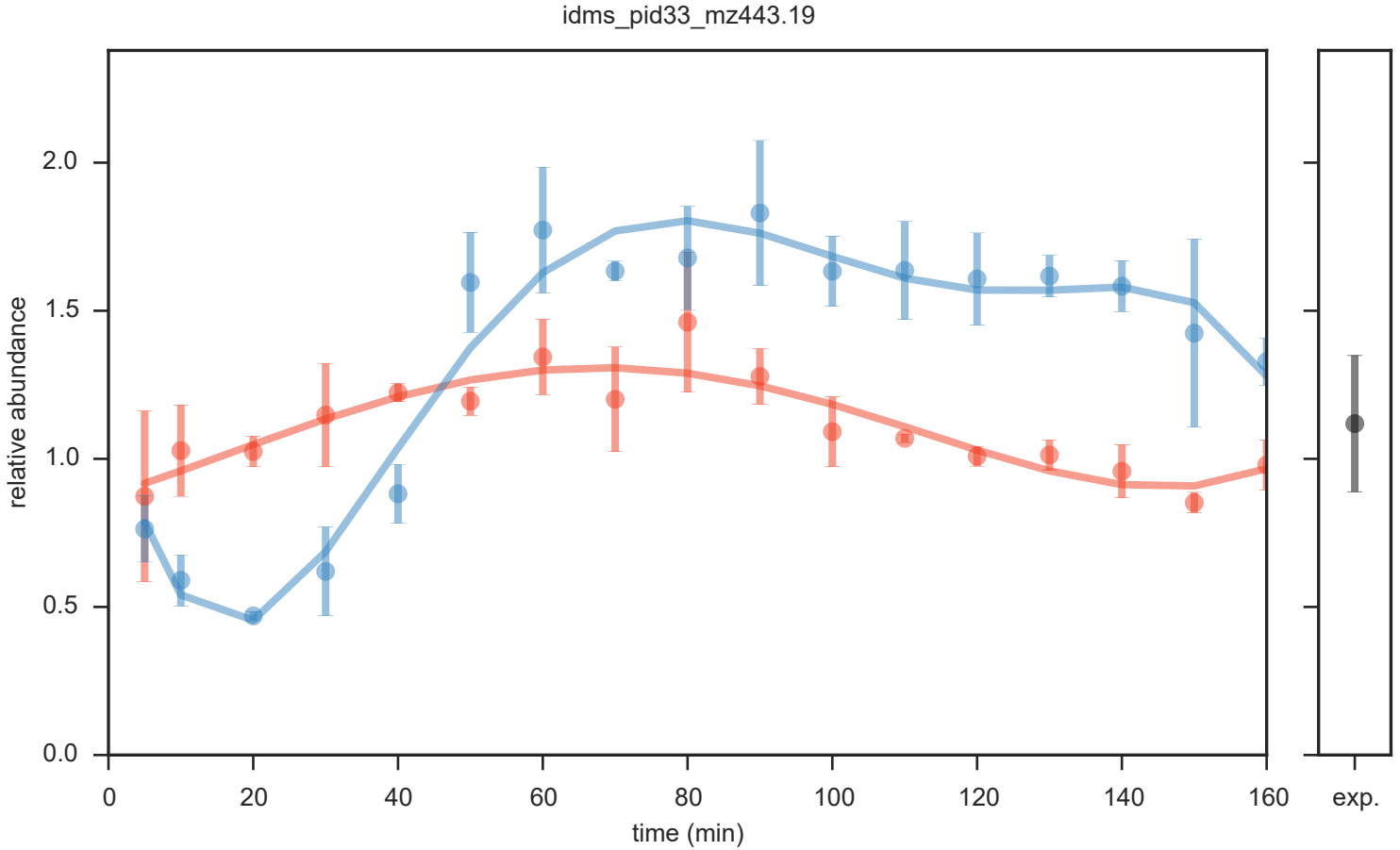
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid33_mz443.19
relative abundance
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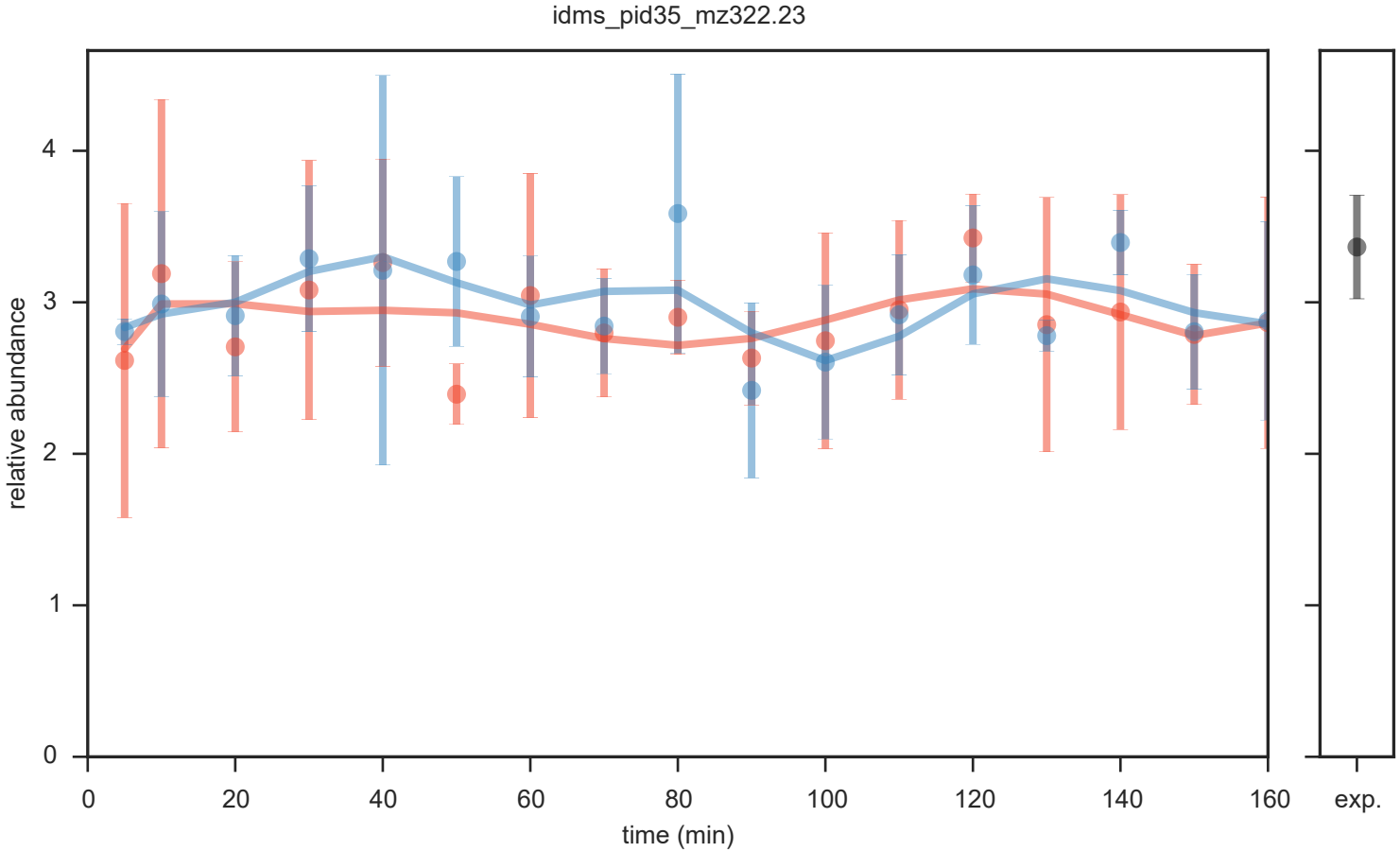
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid35_mz322.23
relative abundance
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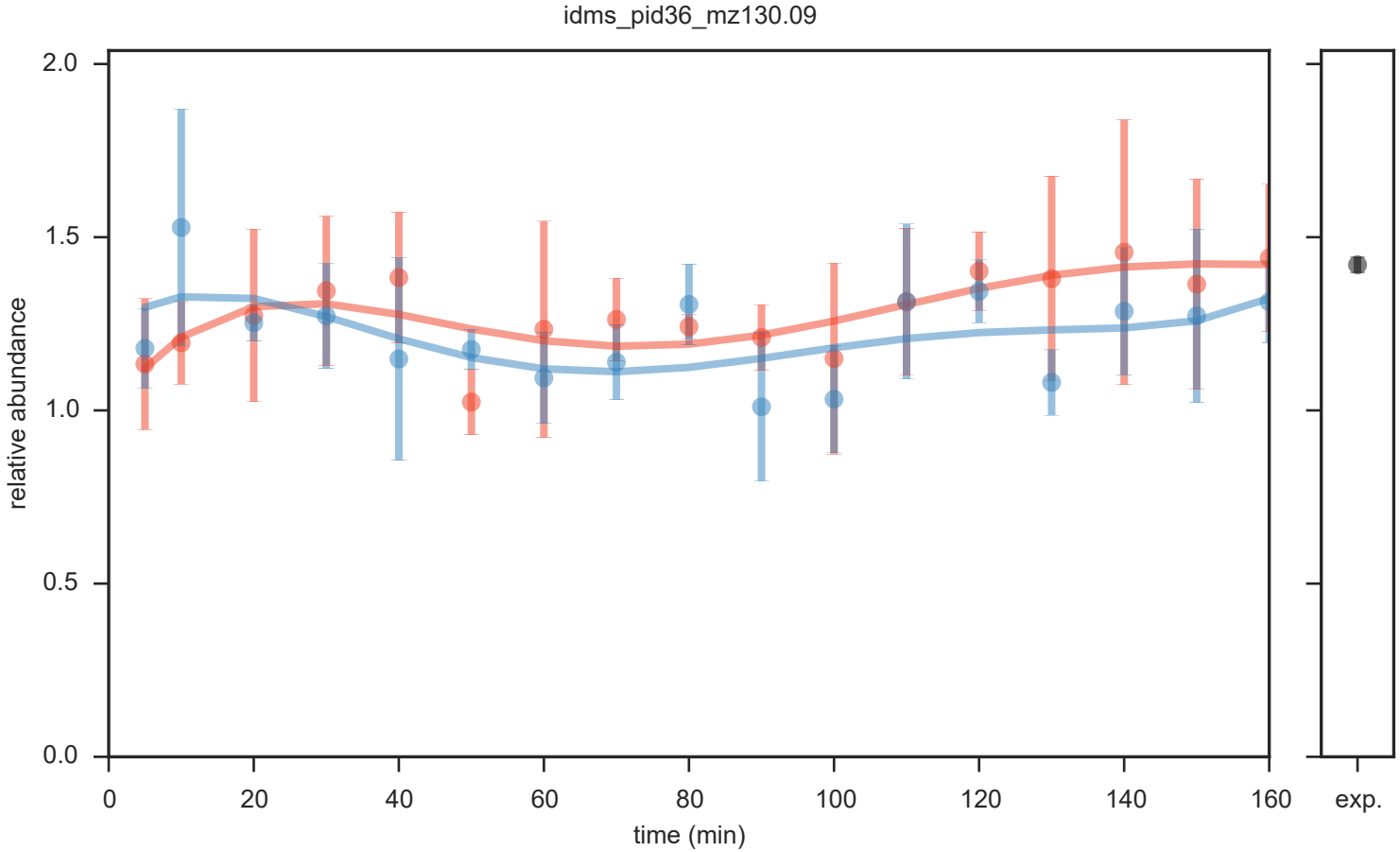
1
2
3
4
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid36_mz130.09
relative abundance
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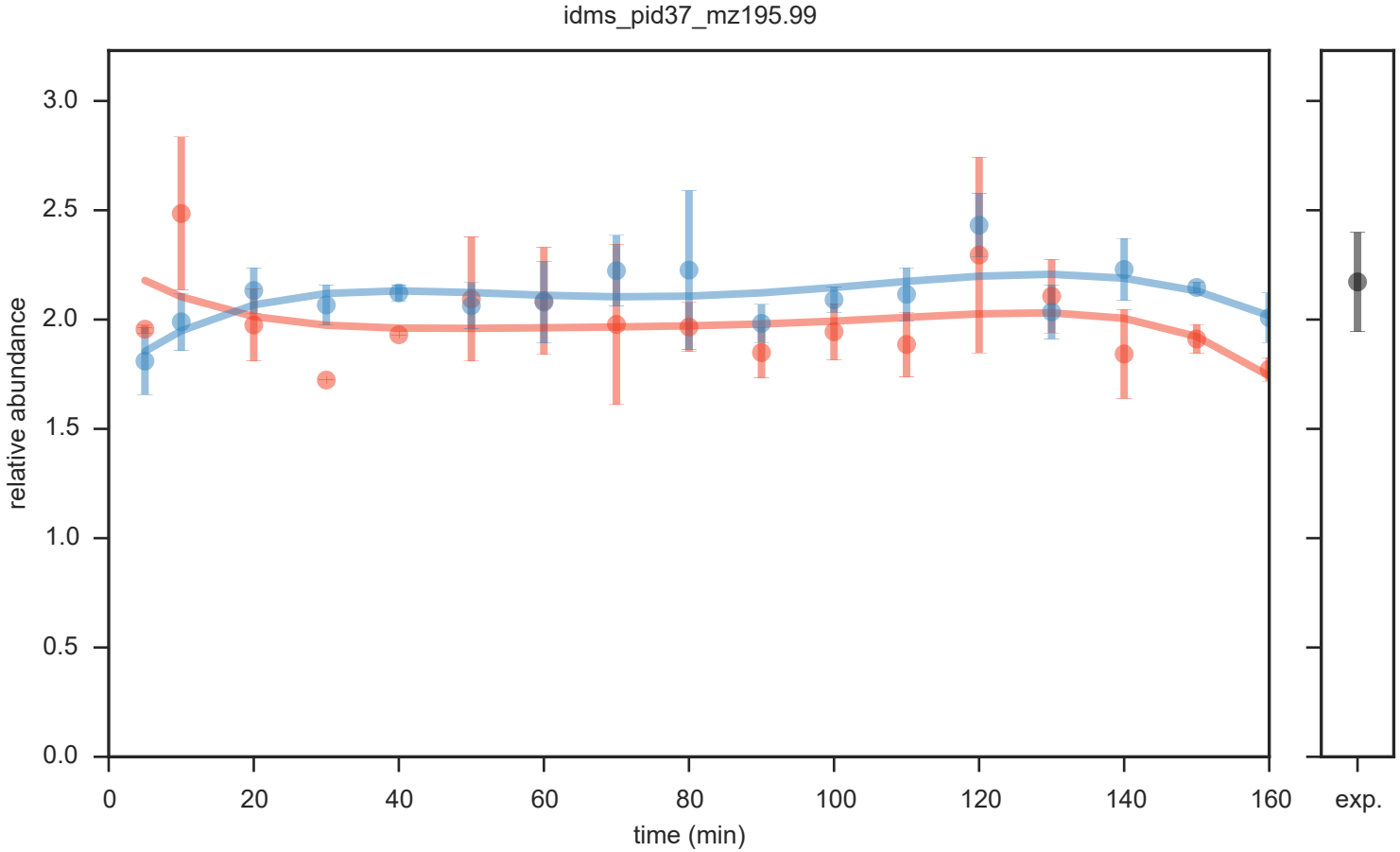
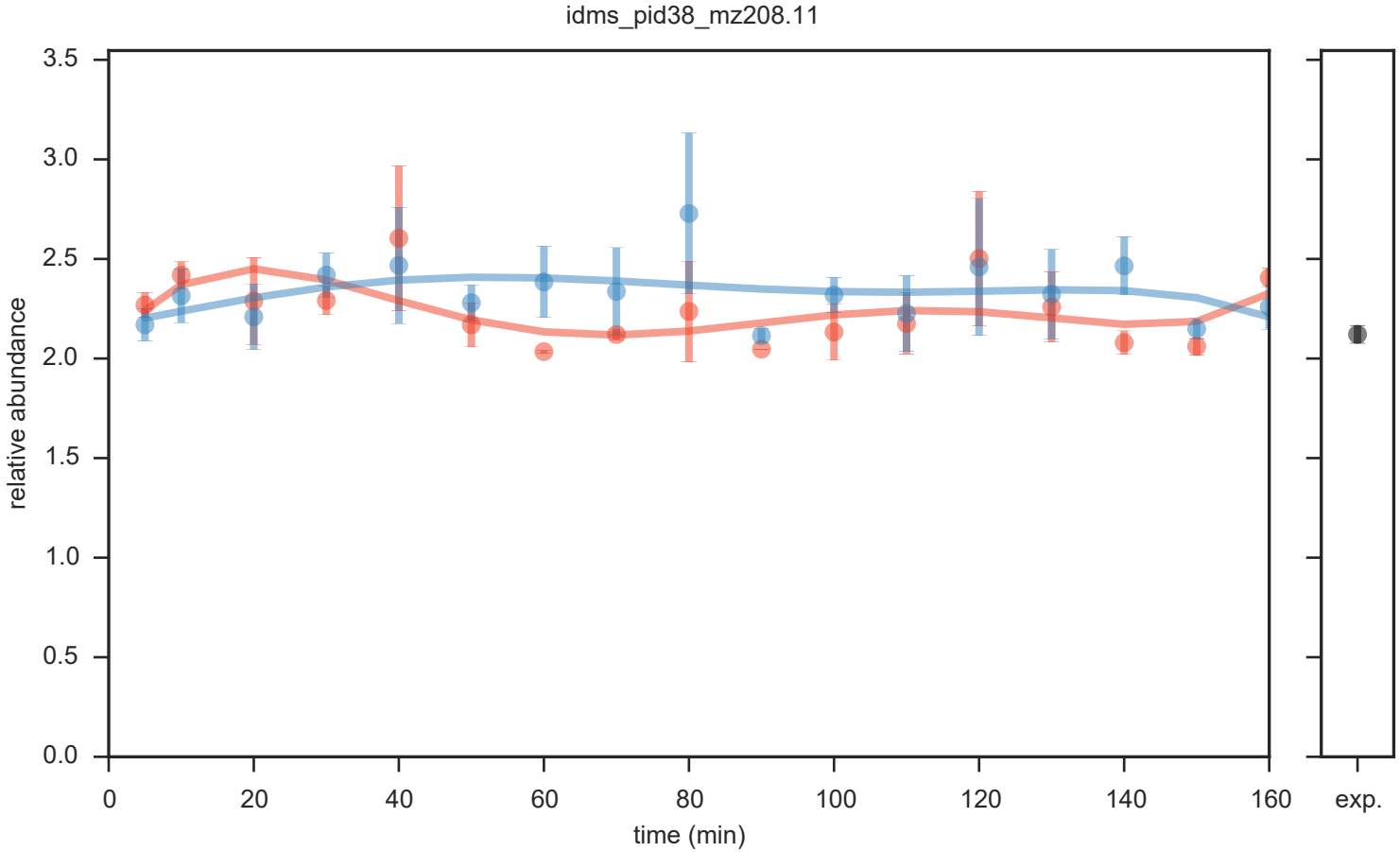
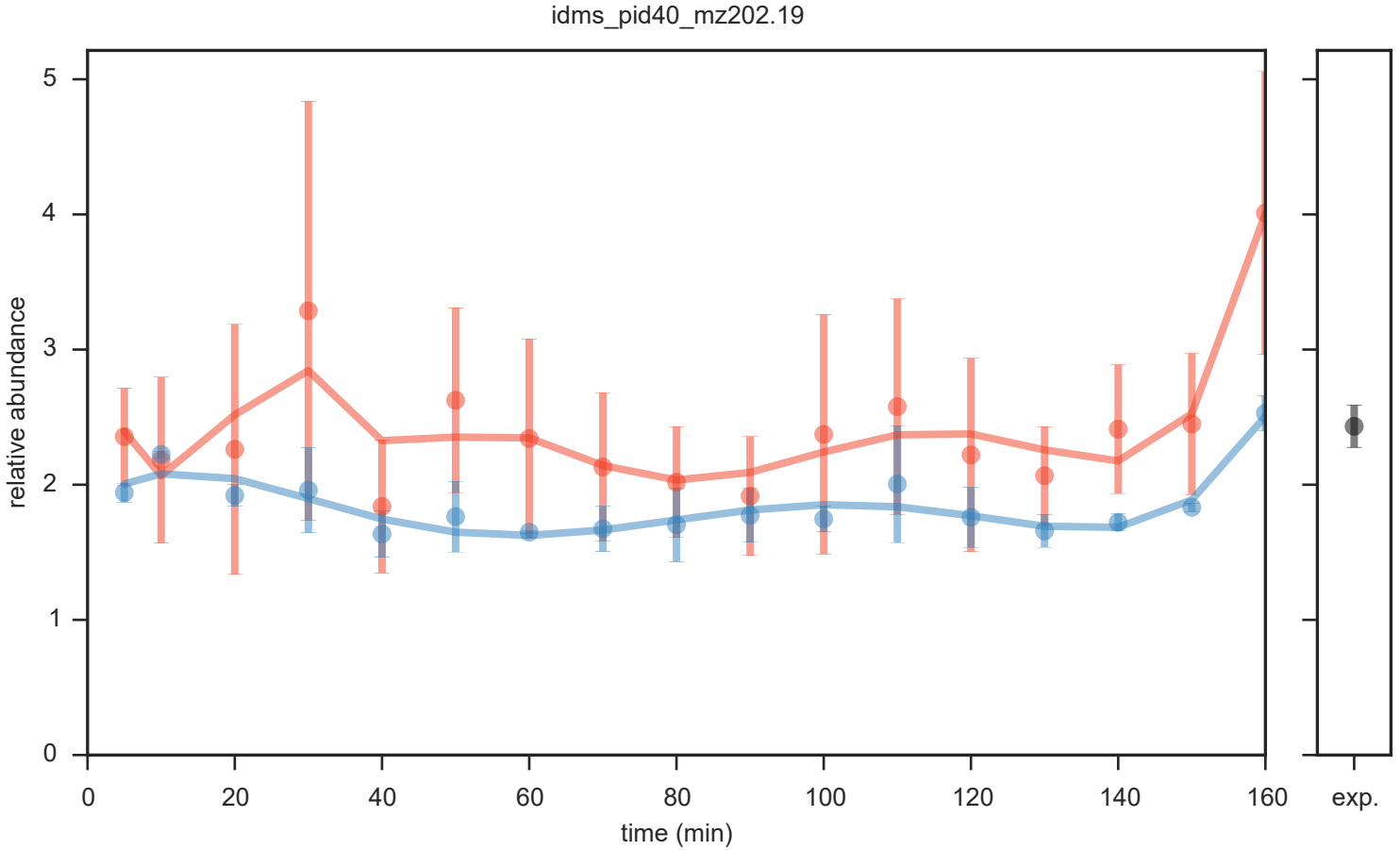
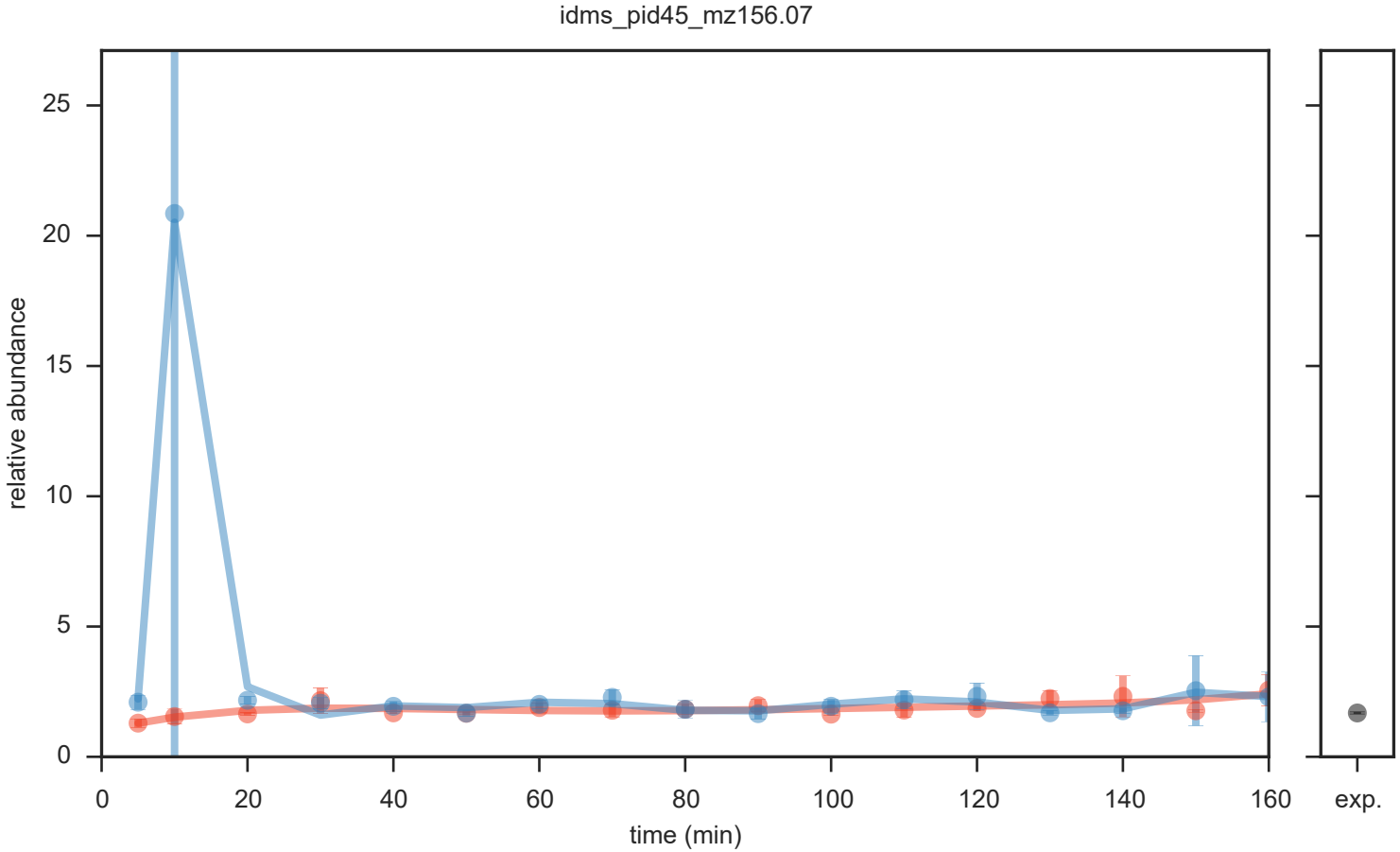
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid37_mz195.99
relative abundance
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid38_mz208.11
relative abundance
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid40_mz202.19
relative abundance
time (min)
exp.
0
1
2
3
4
5
0
20
40
60
80
100
120
140
160


idms_pid45_mz156.07
relative abundance
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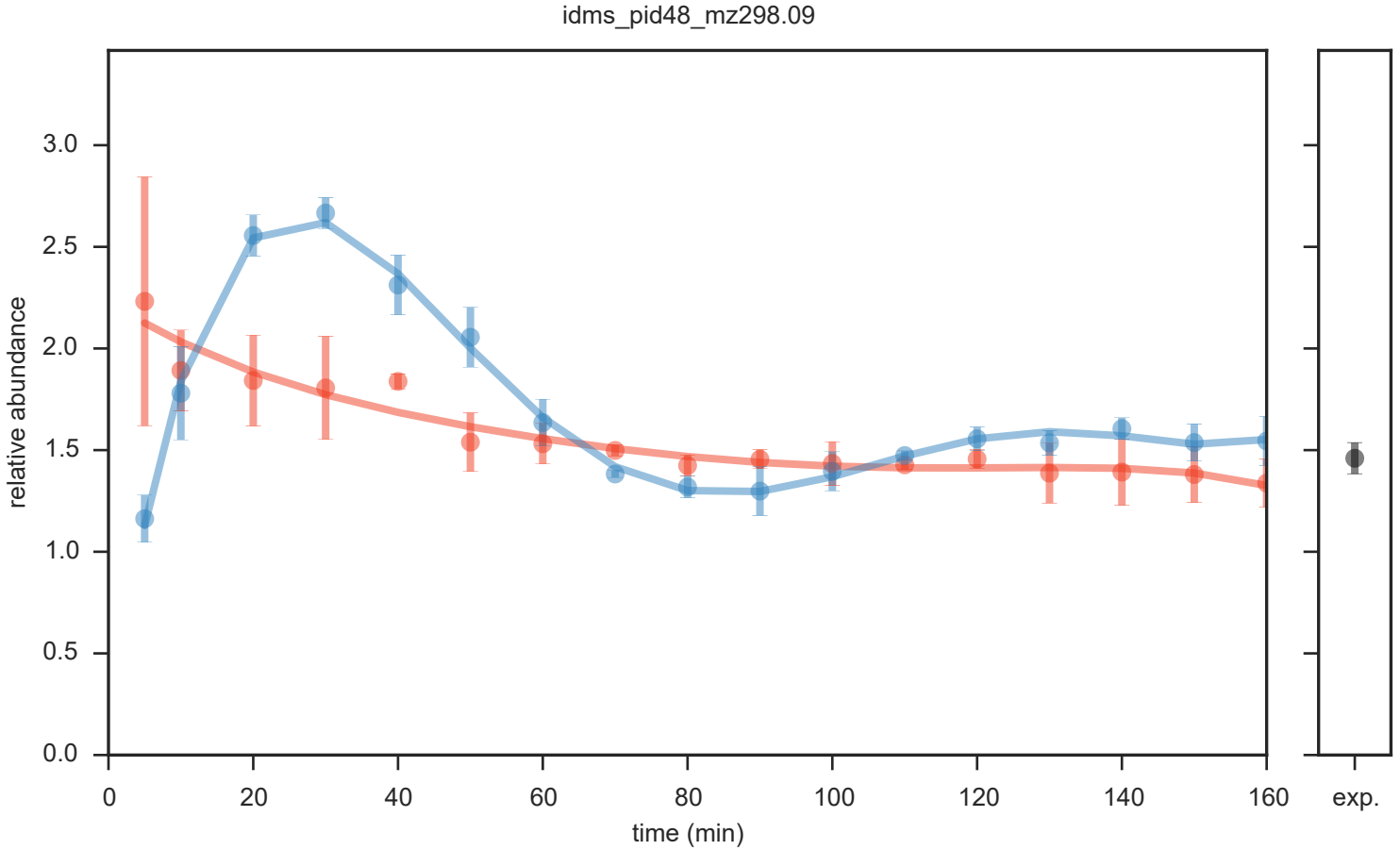
10
15
20
25
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid48_mz298.09
relative abundance
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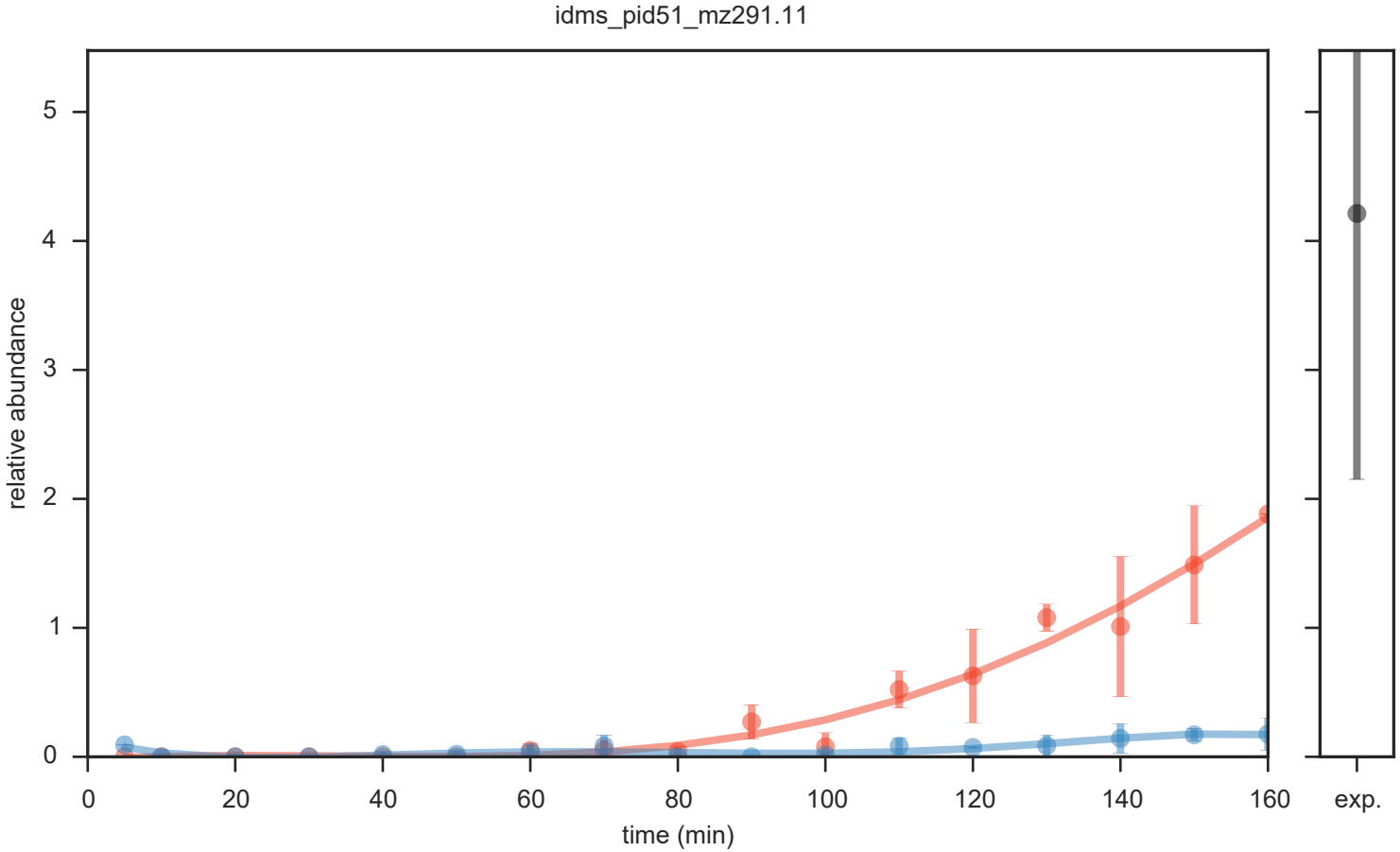
2.5
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid51_mz291.11
relative abundance
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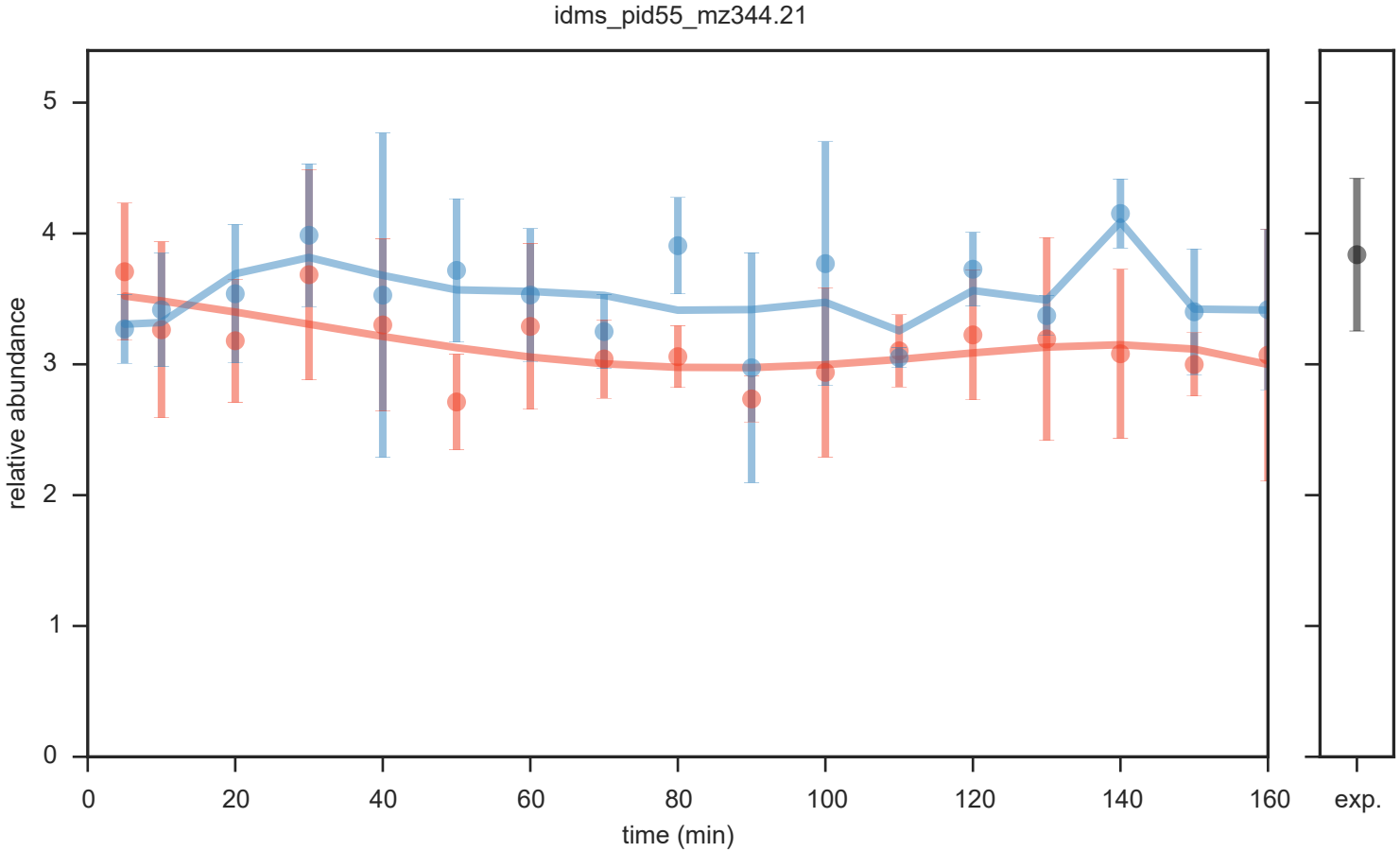
2
3
4
5
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid55_mz344.21
relative abundance
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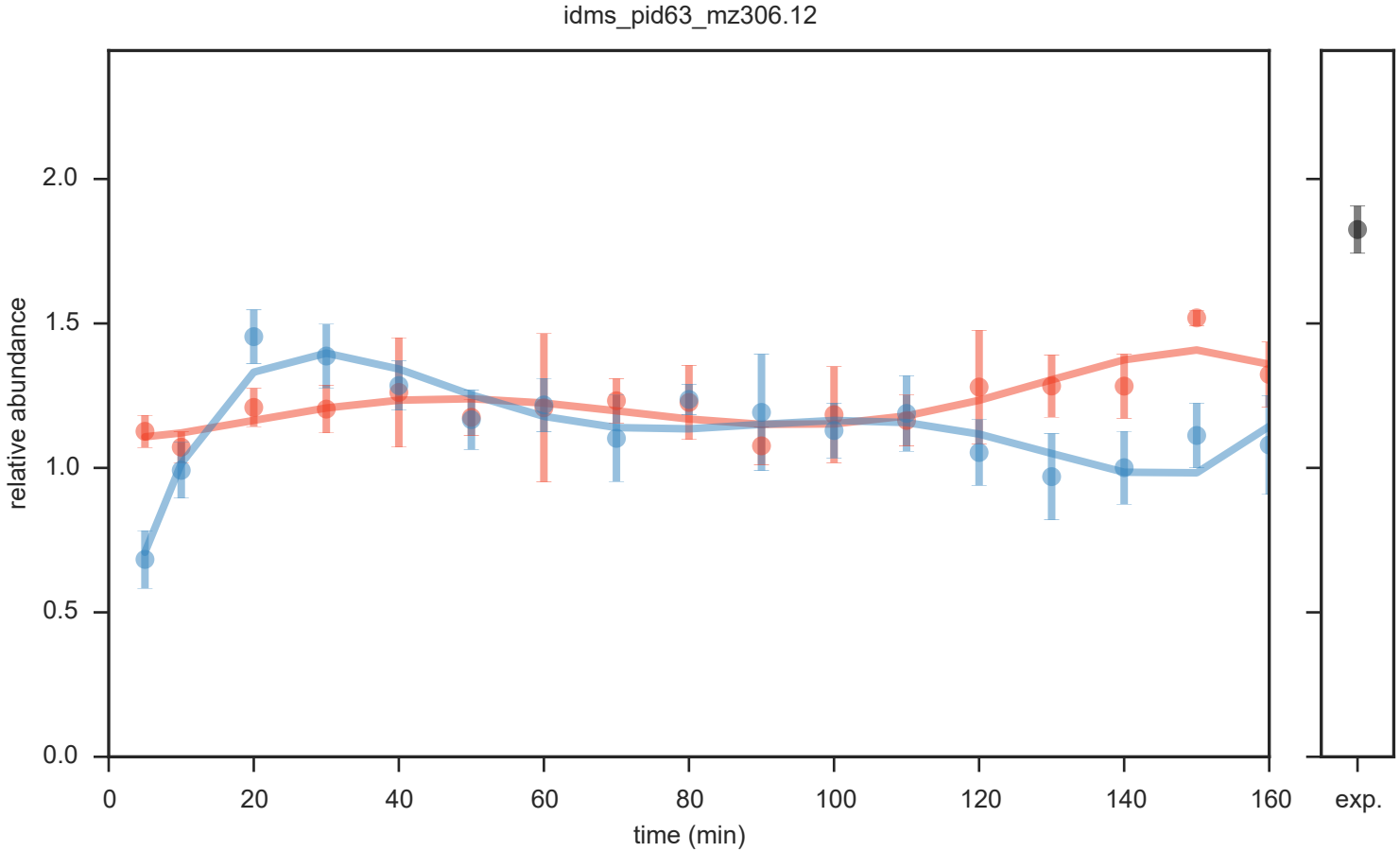
1
2
3
4
5
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid63_mz306.12
relative abundance
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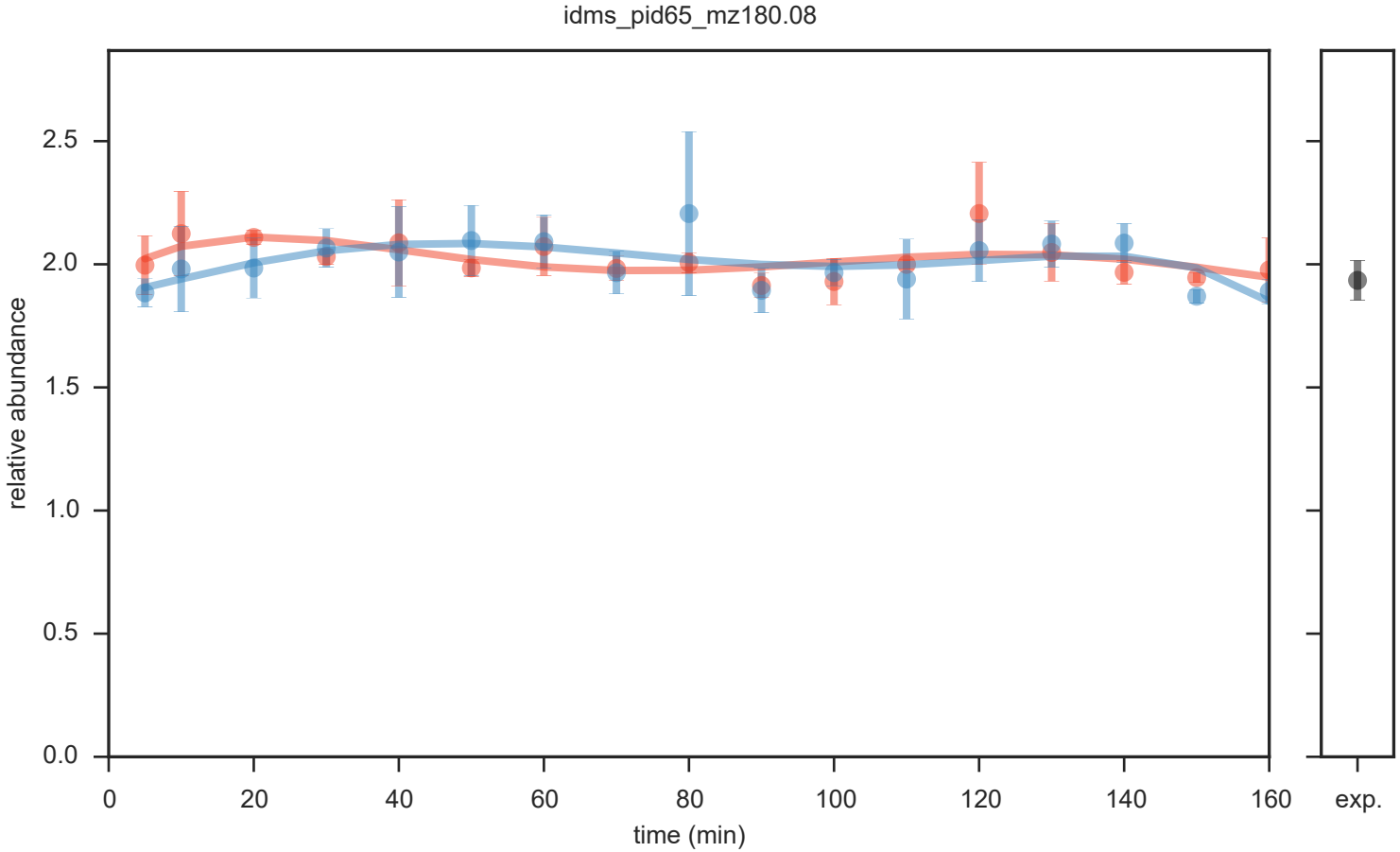
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid65_mz180.08
relative abundance
0.0
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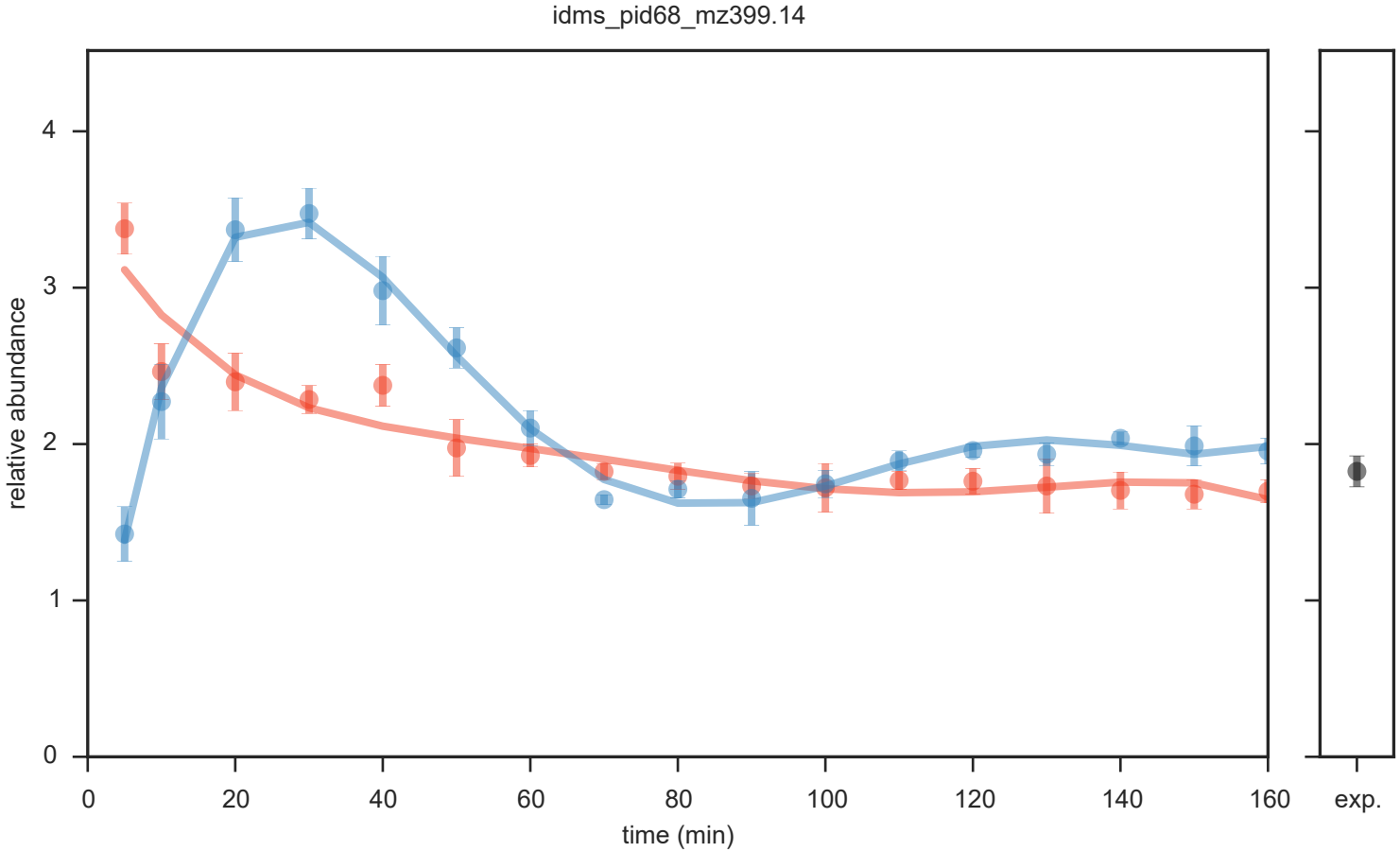
1.0
1.5
2.0
2.5
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid68_mz399.14
relative abundance
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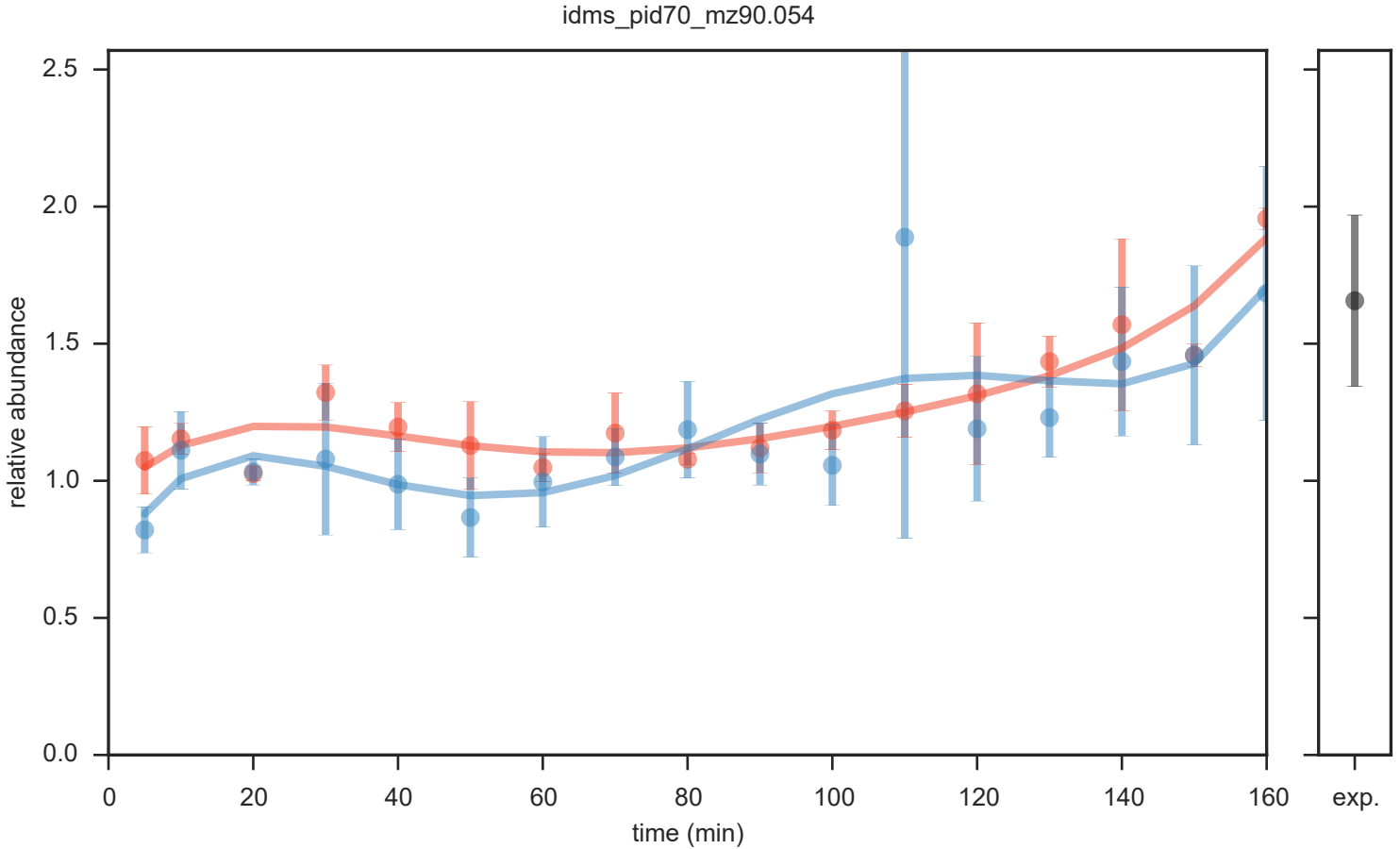
1
2
3
4
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid70_mz90.054
relative abundance
2.5
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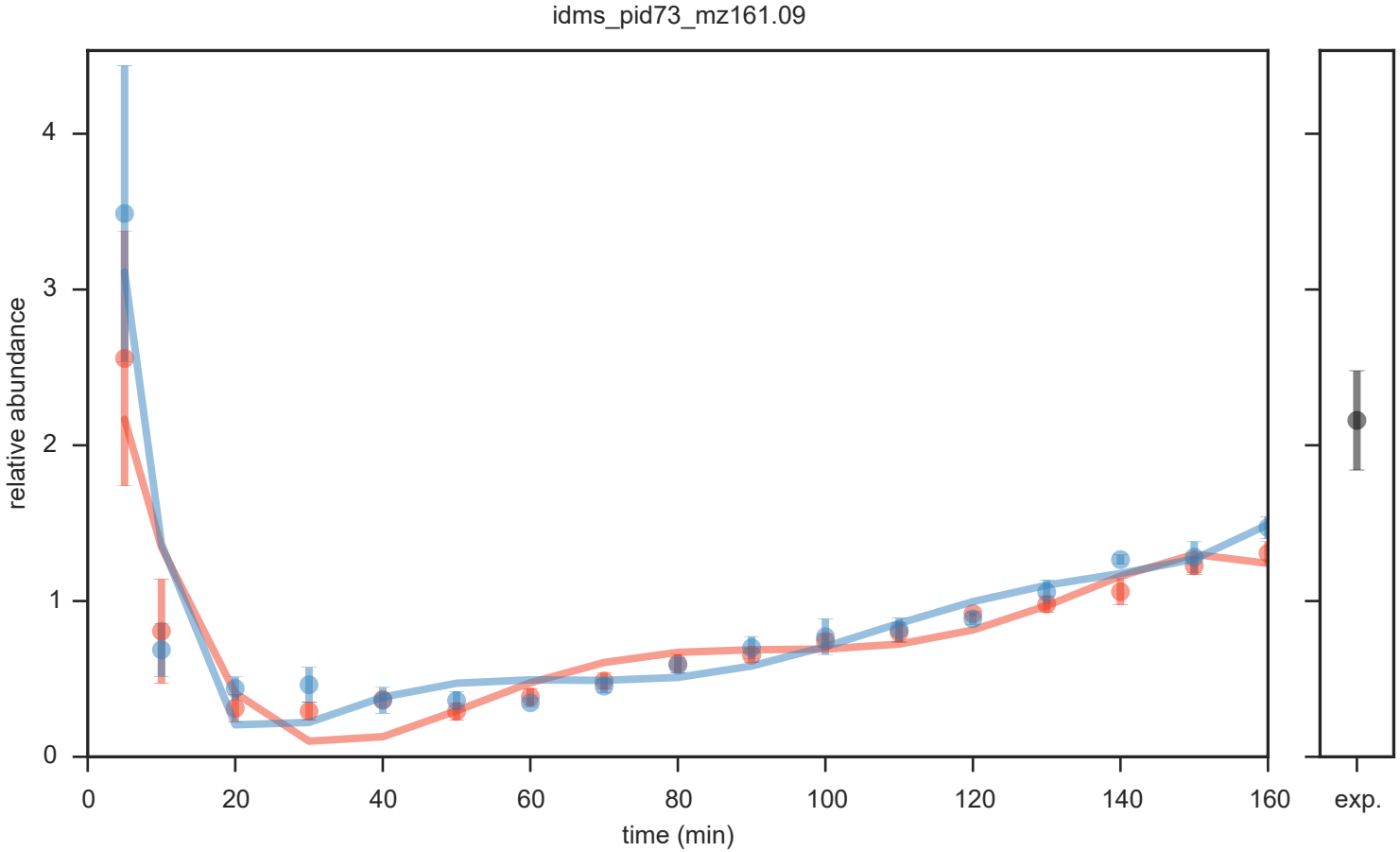
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid73_mz161.09
relative abundance
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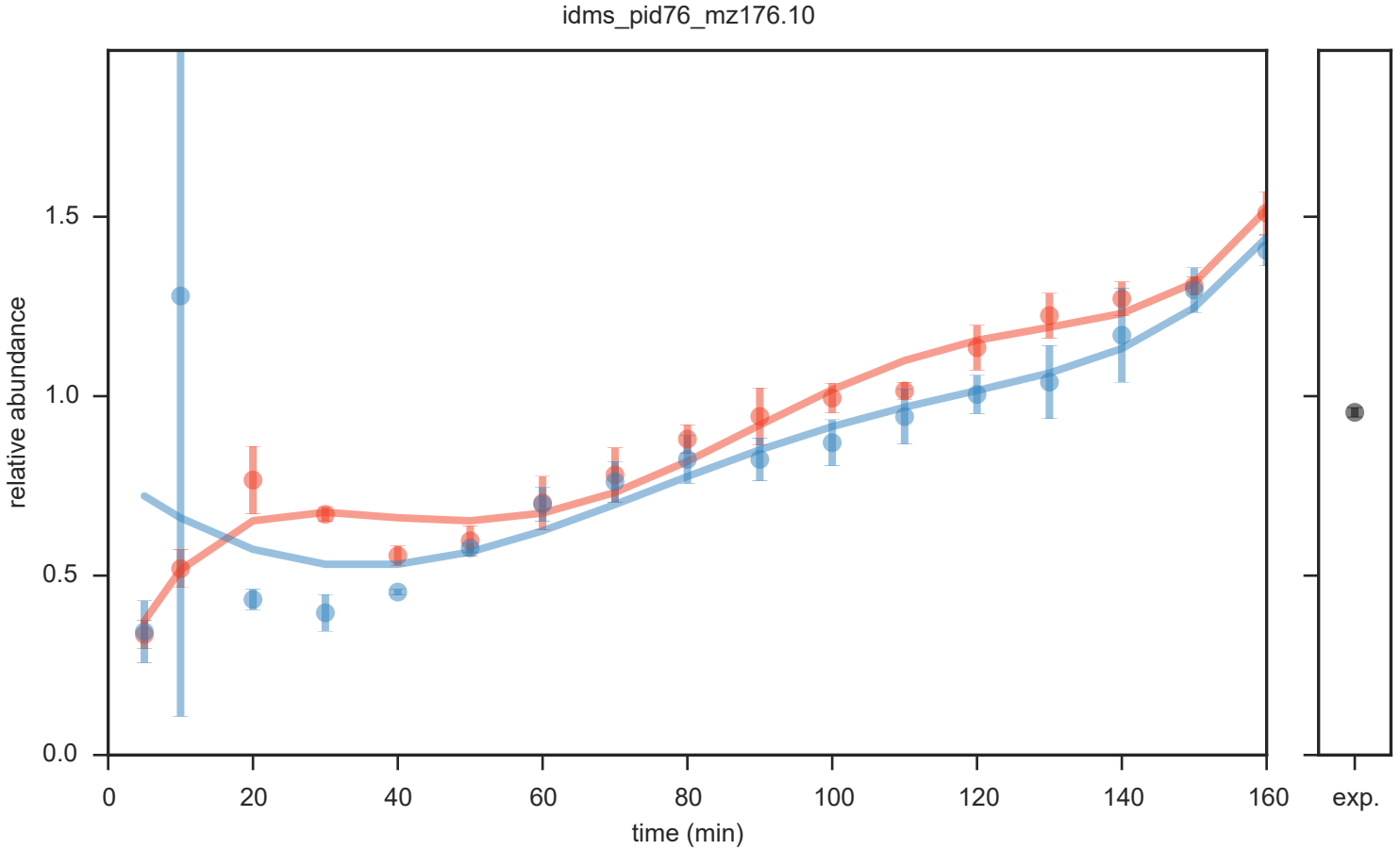
1
2
3
4
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid76_mz176.10
relative abundance
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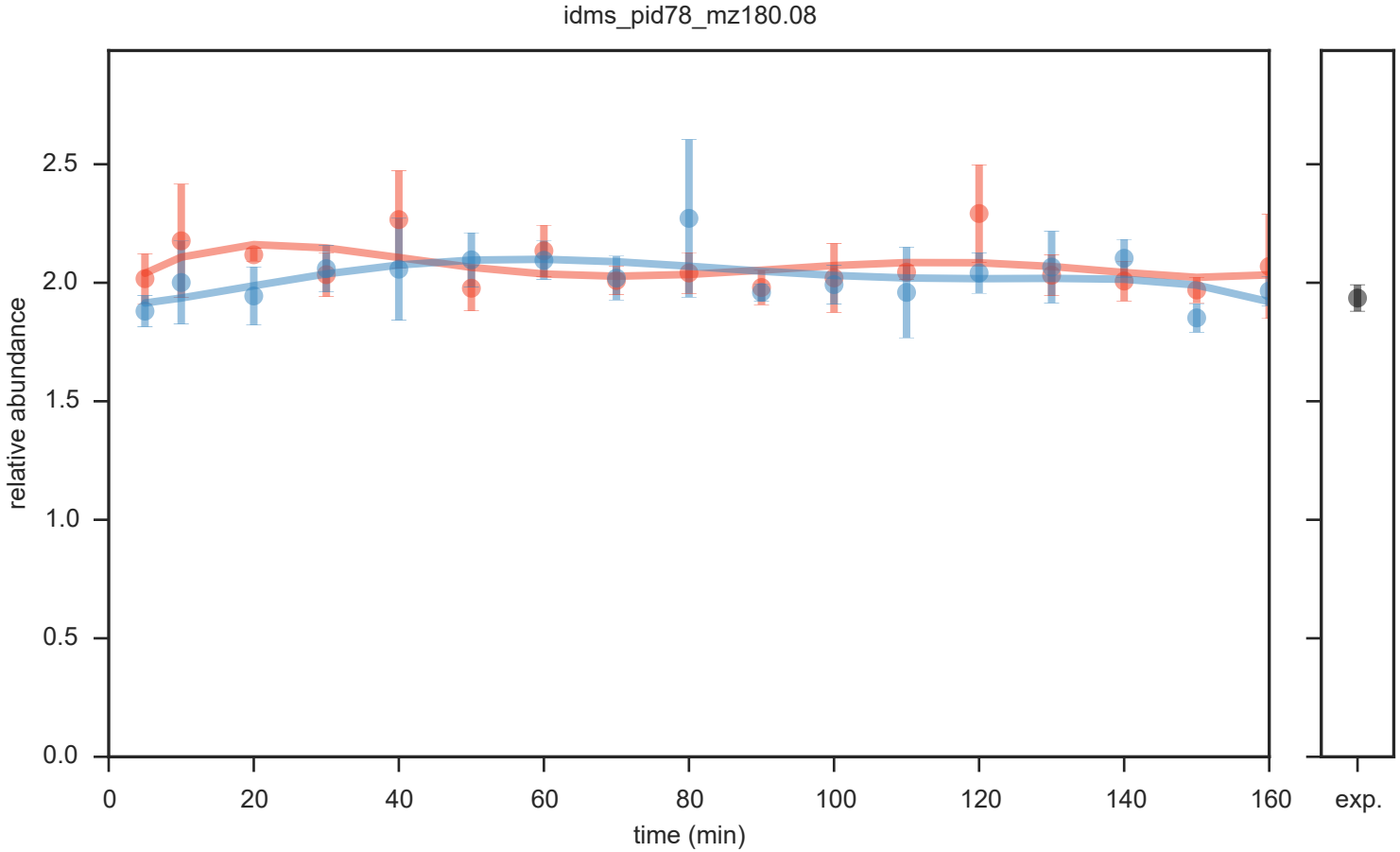
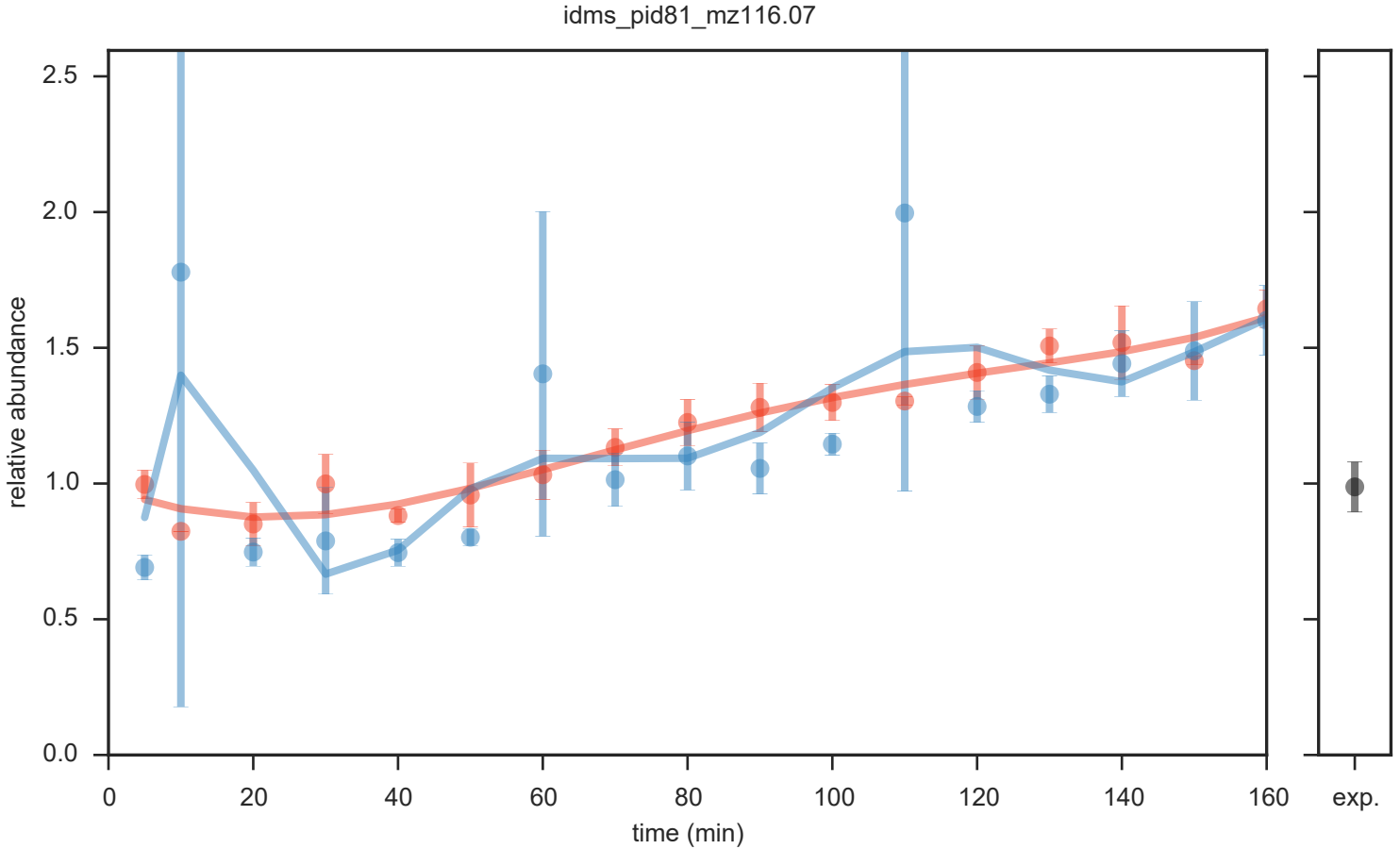
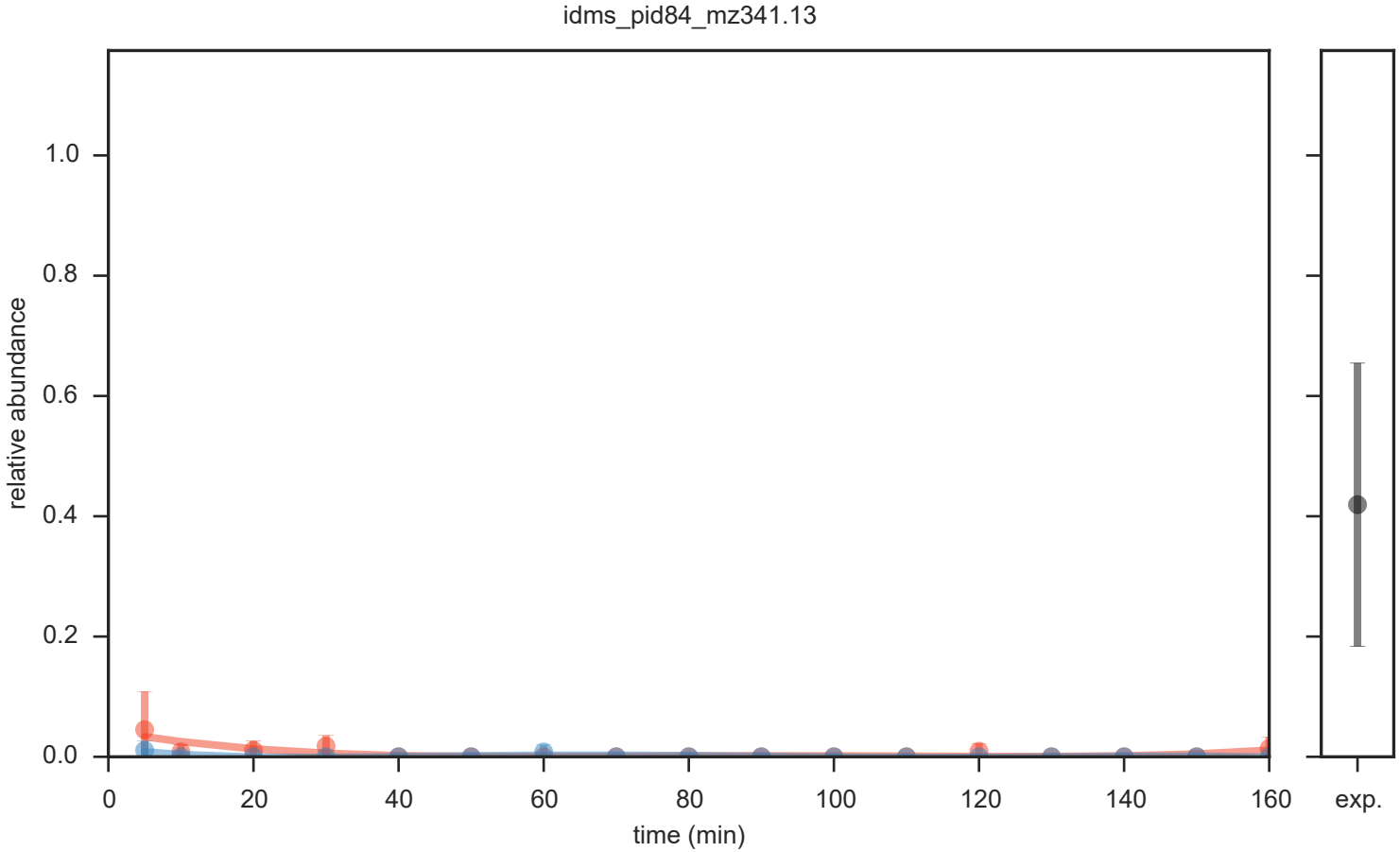
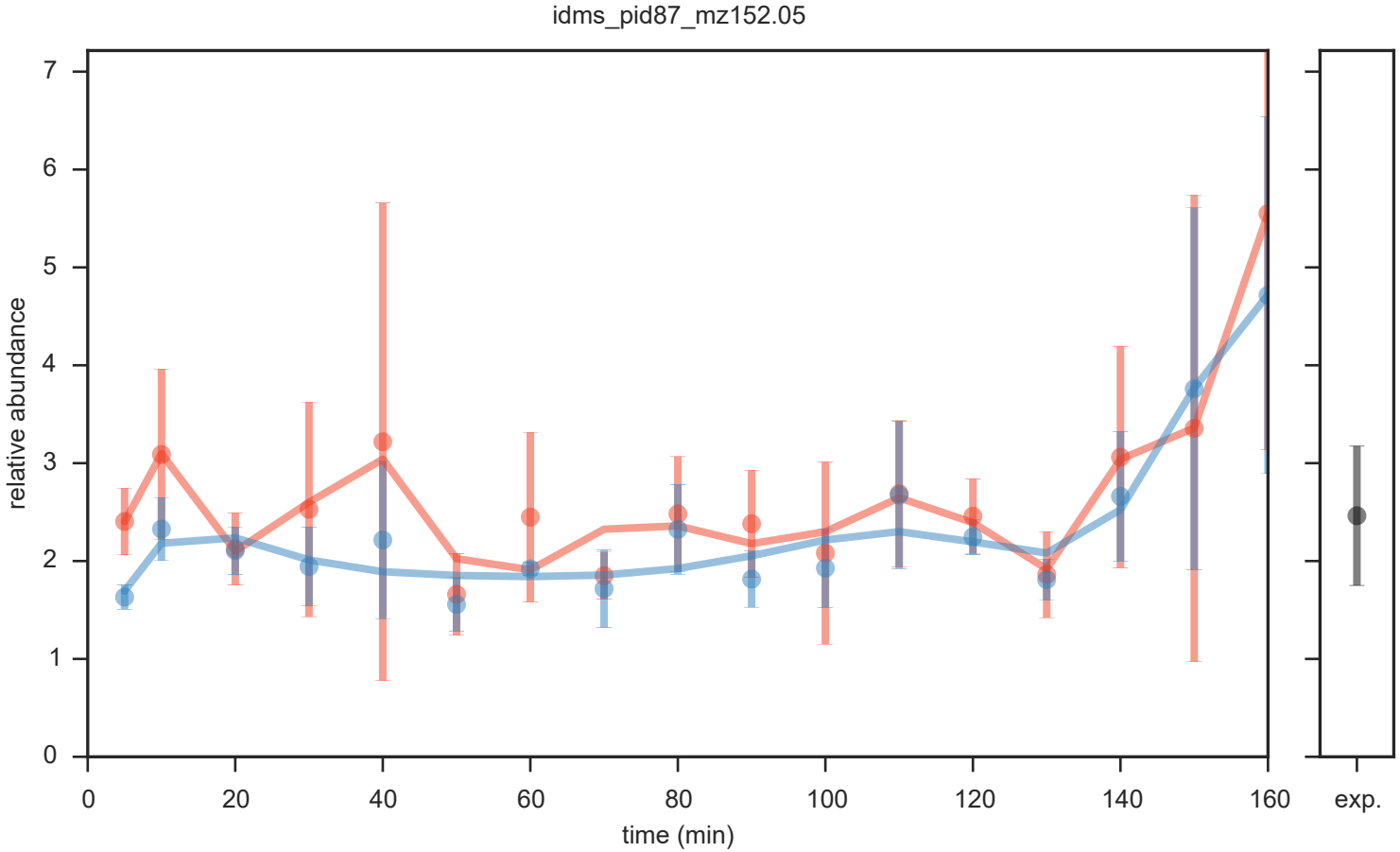
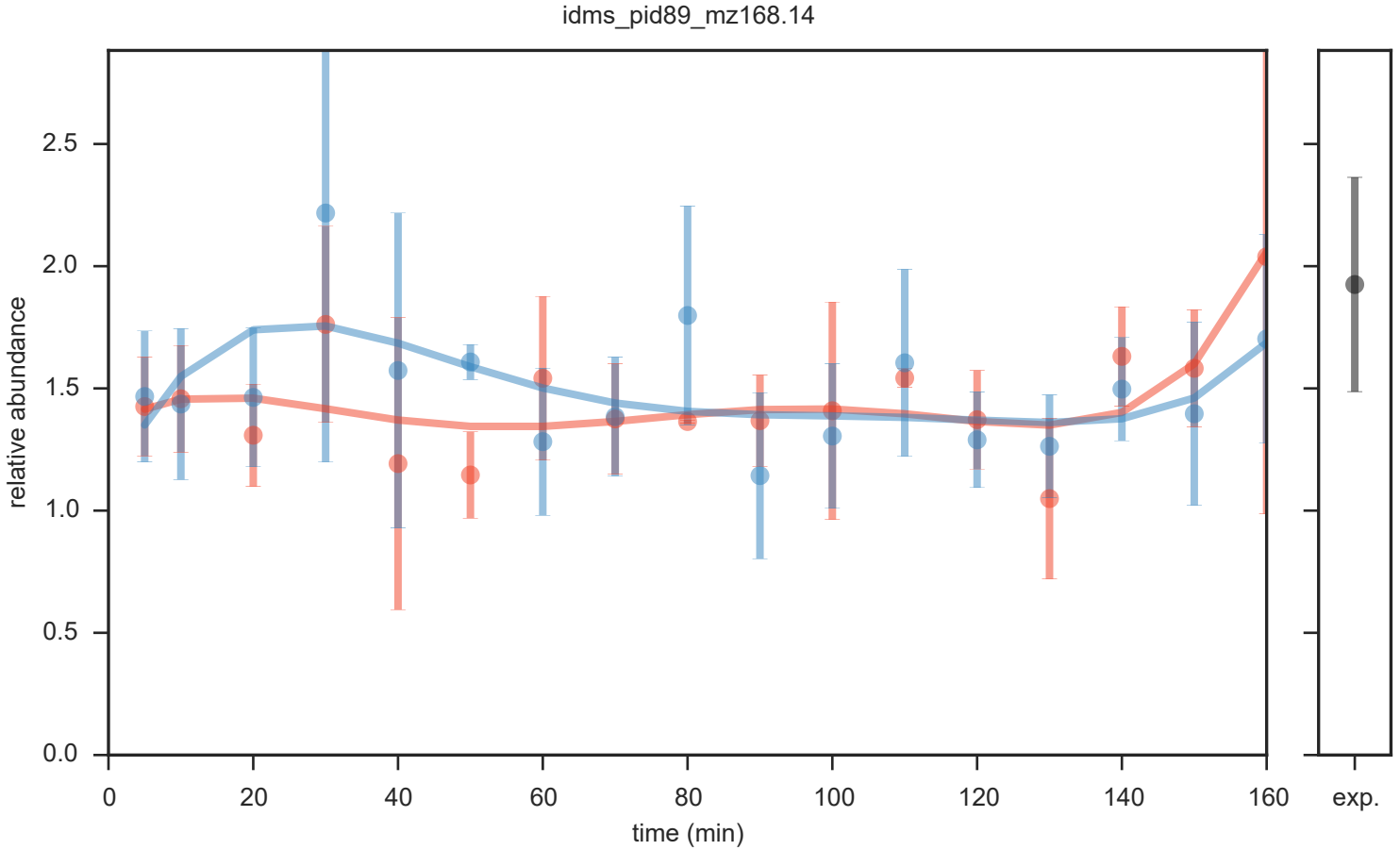
1.0
1.5
0
20
40
60
80
100
120
140
160
time (min)
exp.

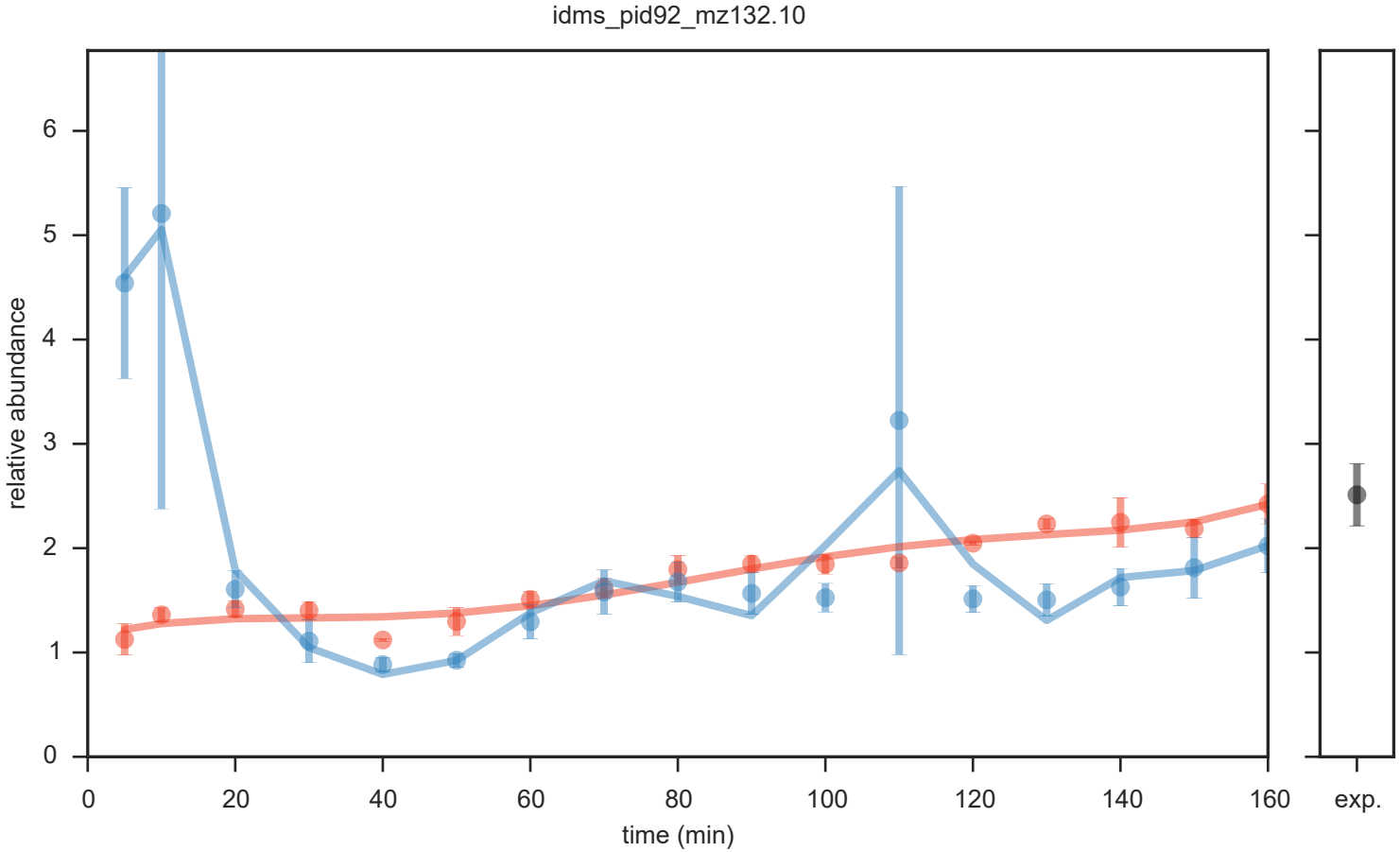

idms_pid78_mz180.08
relative abundance
0.0
0.5
1.0
1.5
2.0
2.5
0
20
40
60
80
100
120
140
160
time (min)
exp.

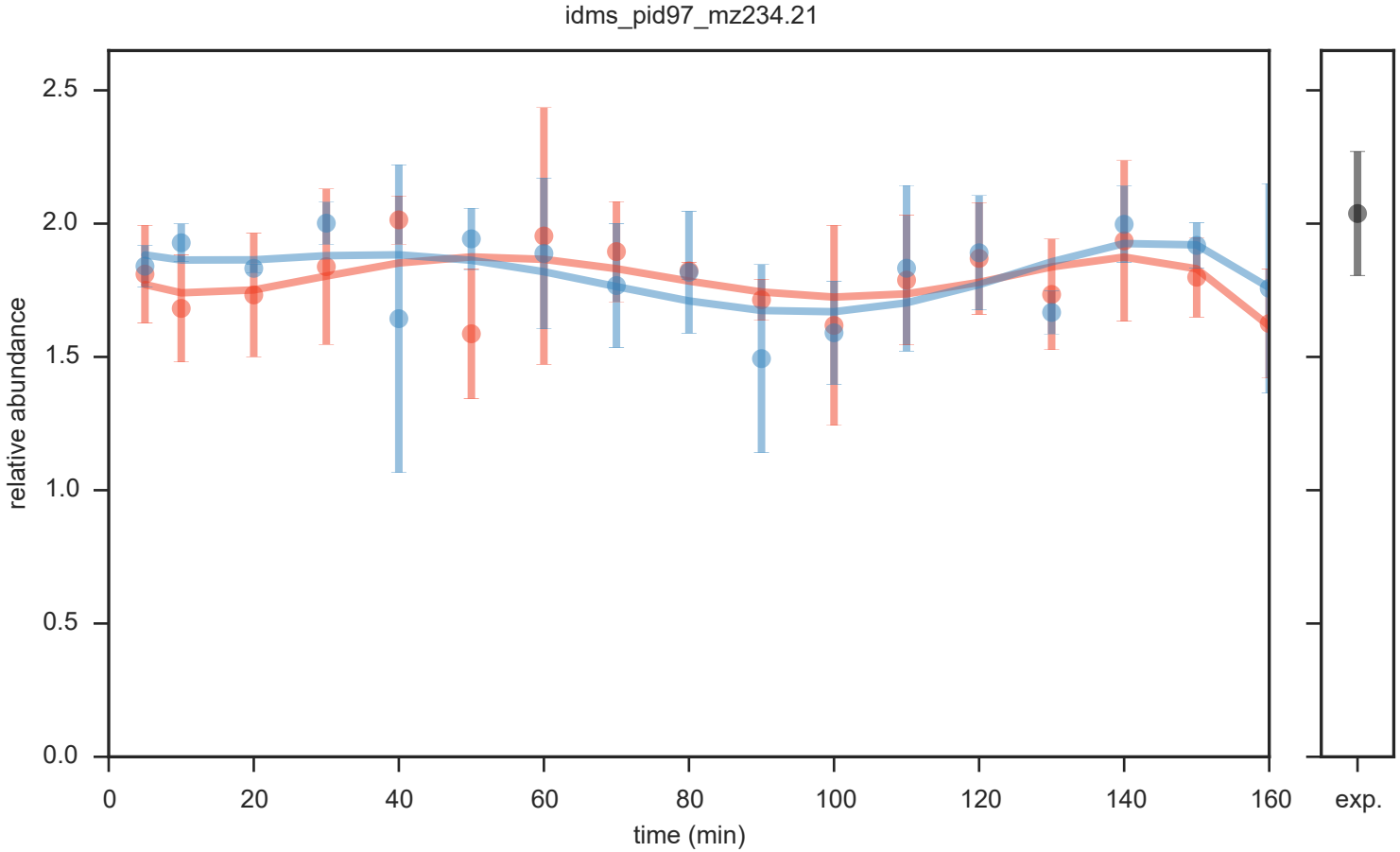

idms_pid81_mz116.07
relative abundance
2.5
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.

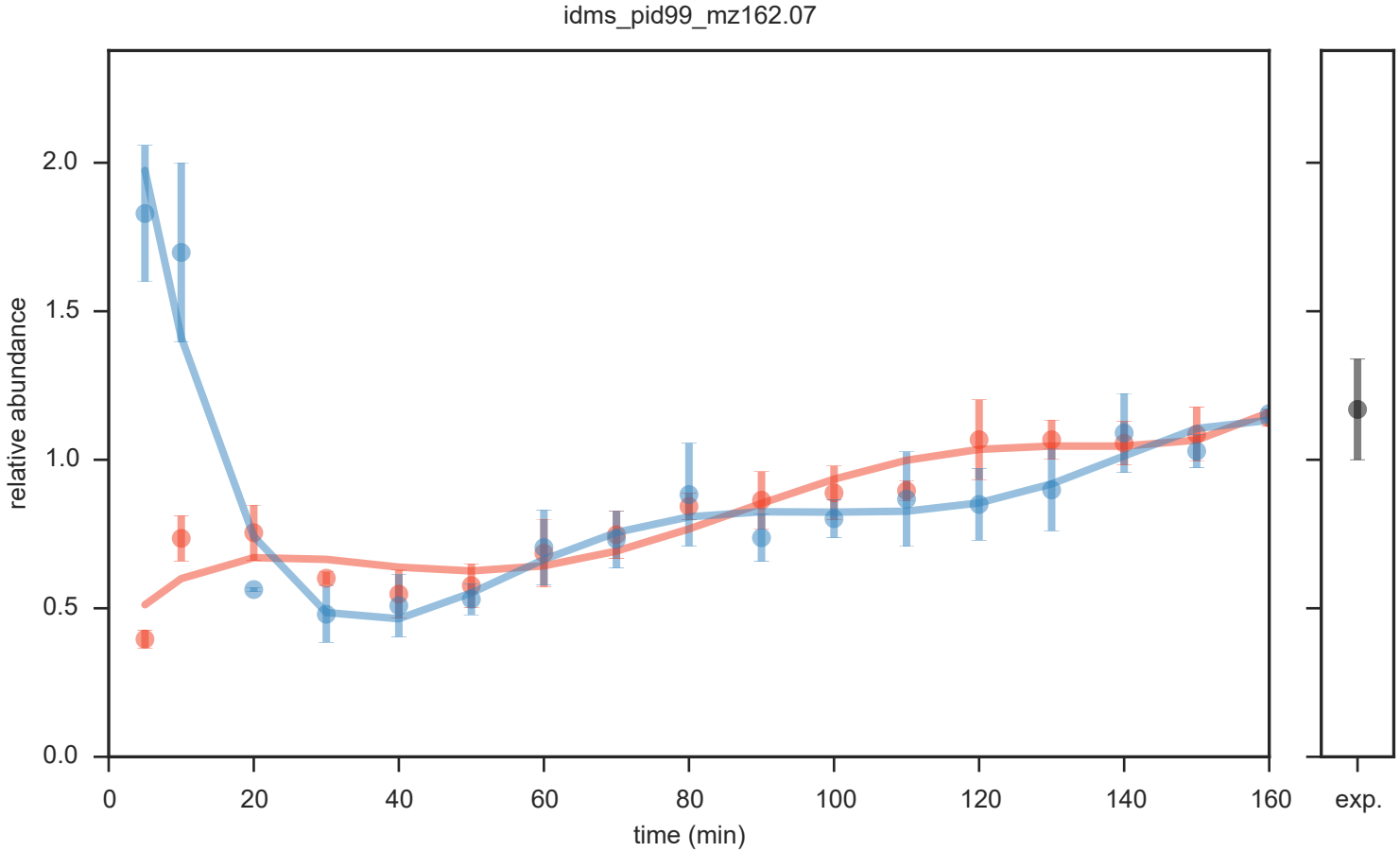

idms_pid84_mz341.13
relative abundance
1.0
0.8
0.6
0.4
0.2
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.

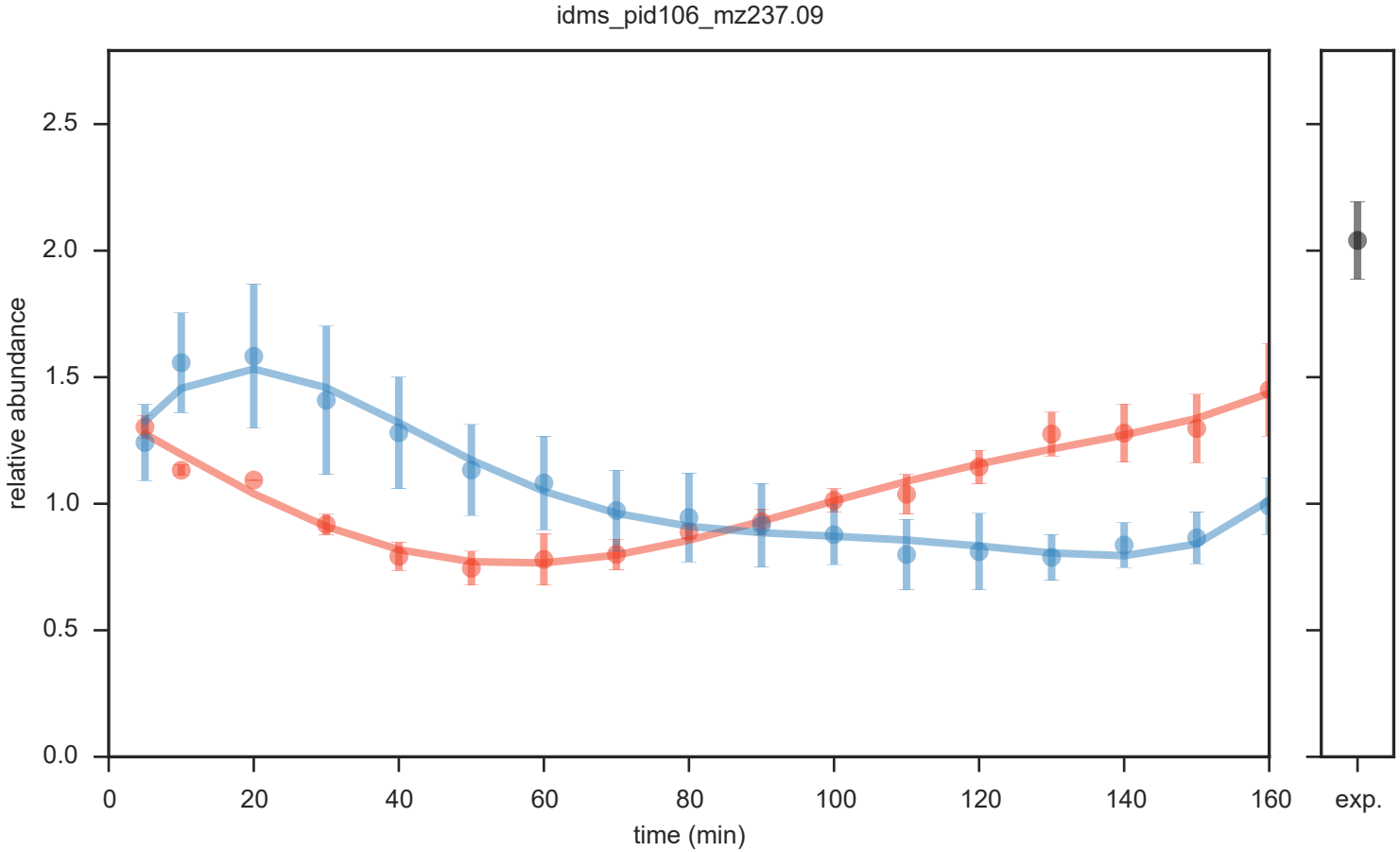

idms_pid87_mz152.05
relative abundance
time (min)
exp.
0
1
2
3
4
5
6
7
0
20
40
60
80
100
120
140
160

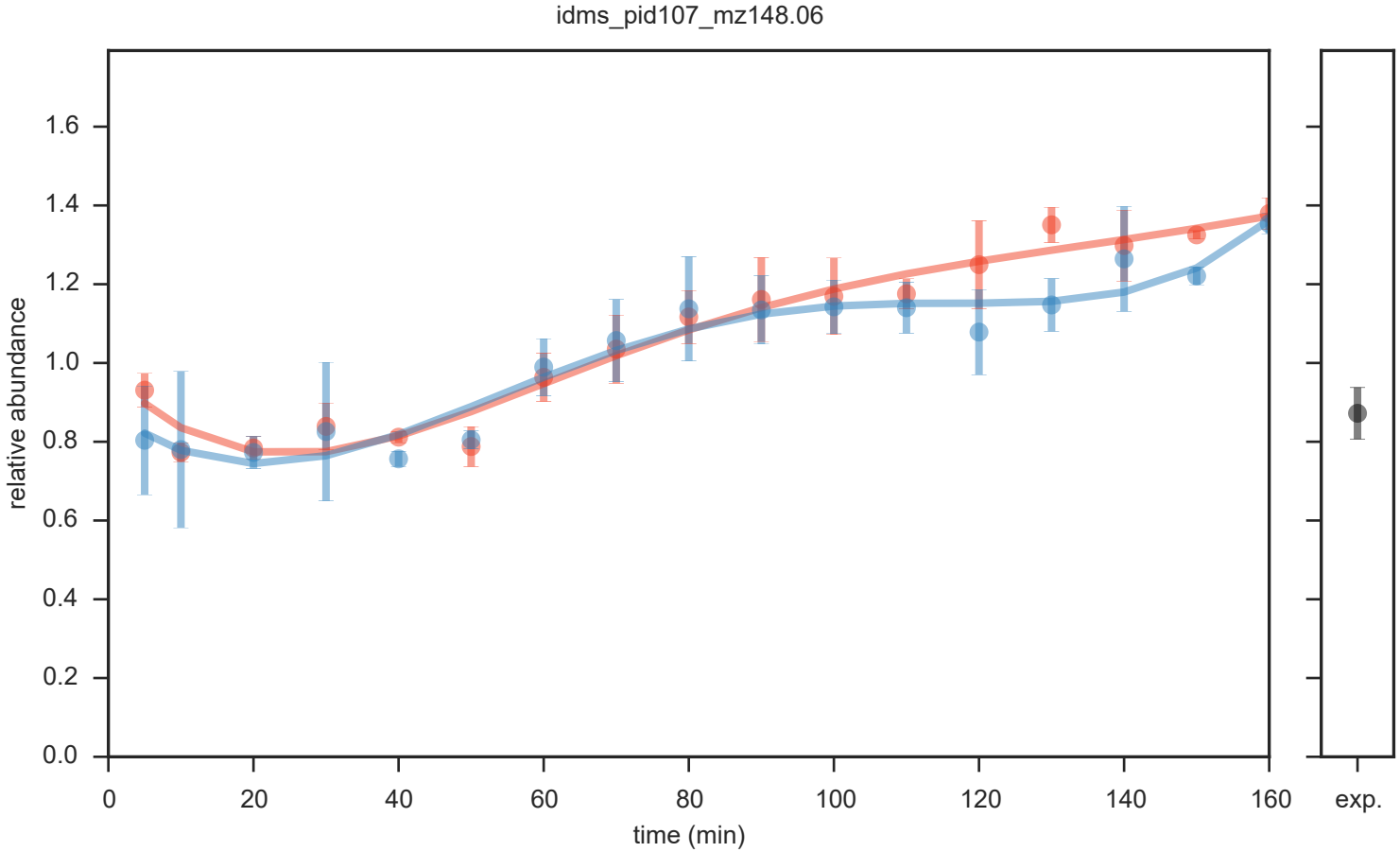

idms_pid89_mz168.14
relative abundance
0.0
0.5
1.0
1.5
2.0
2.5
0
20
40
60
80
100
120
140
160
time (min)
exp.

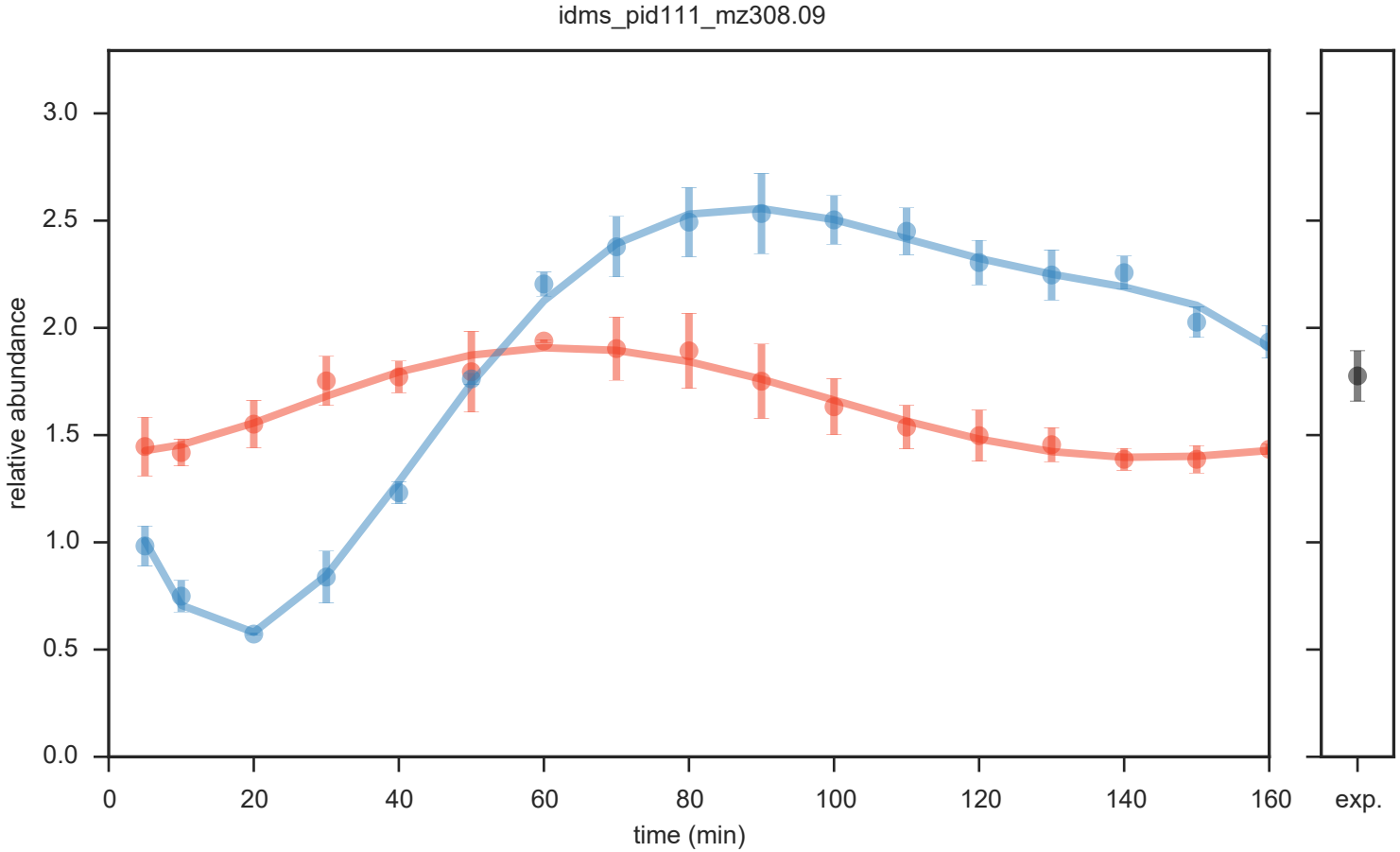

idms_pid92_mz132.10
relative abundance
0
1
2
3
4
5
6
0
20
40
60
80
100
120
140
160
time (min)
exp.

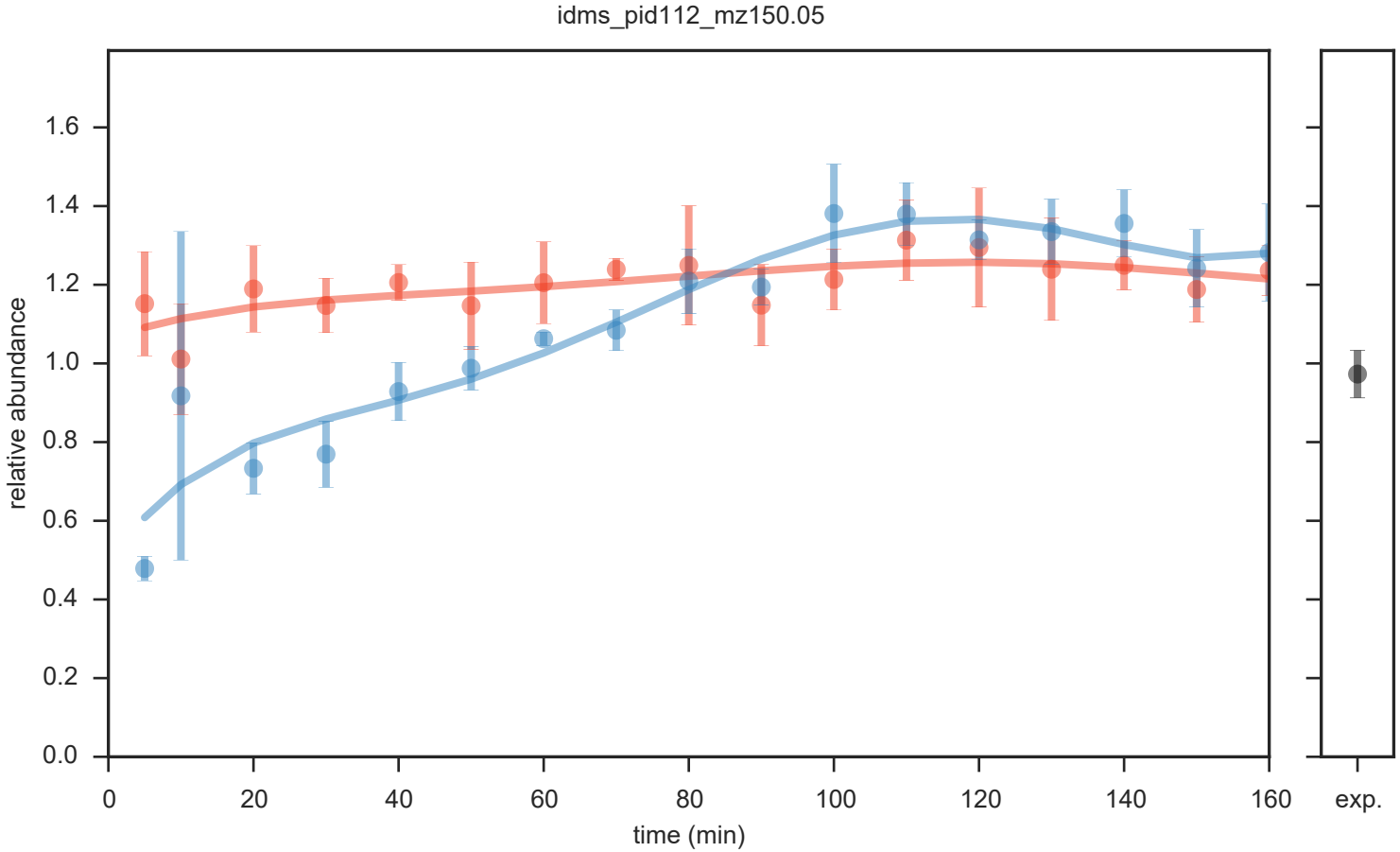

idms_pid97_mz234.21
relative abundance
2.5
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.

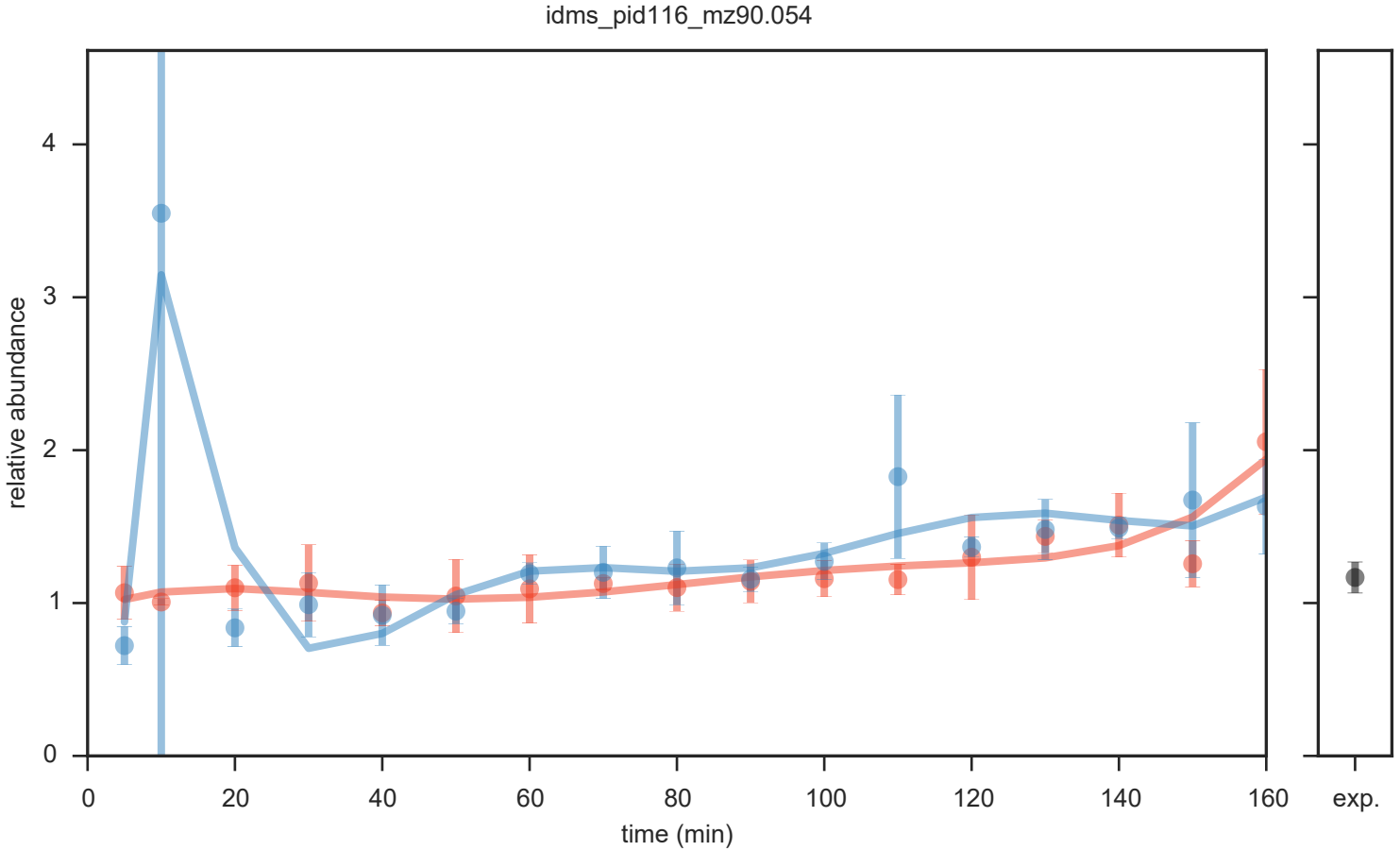

idms_pid99_mz162.07
relative abundance
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.

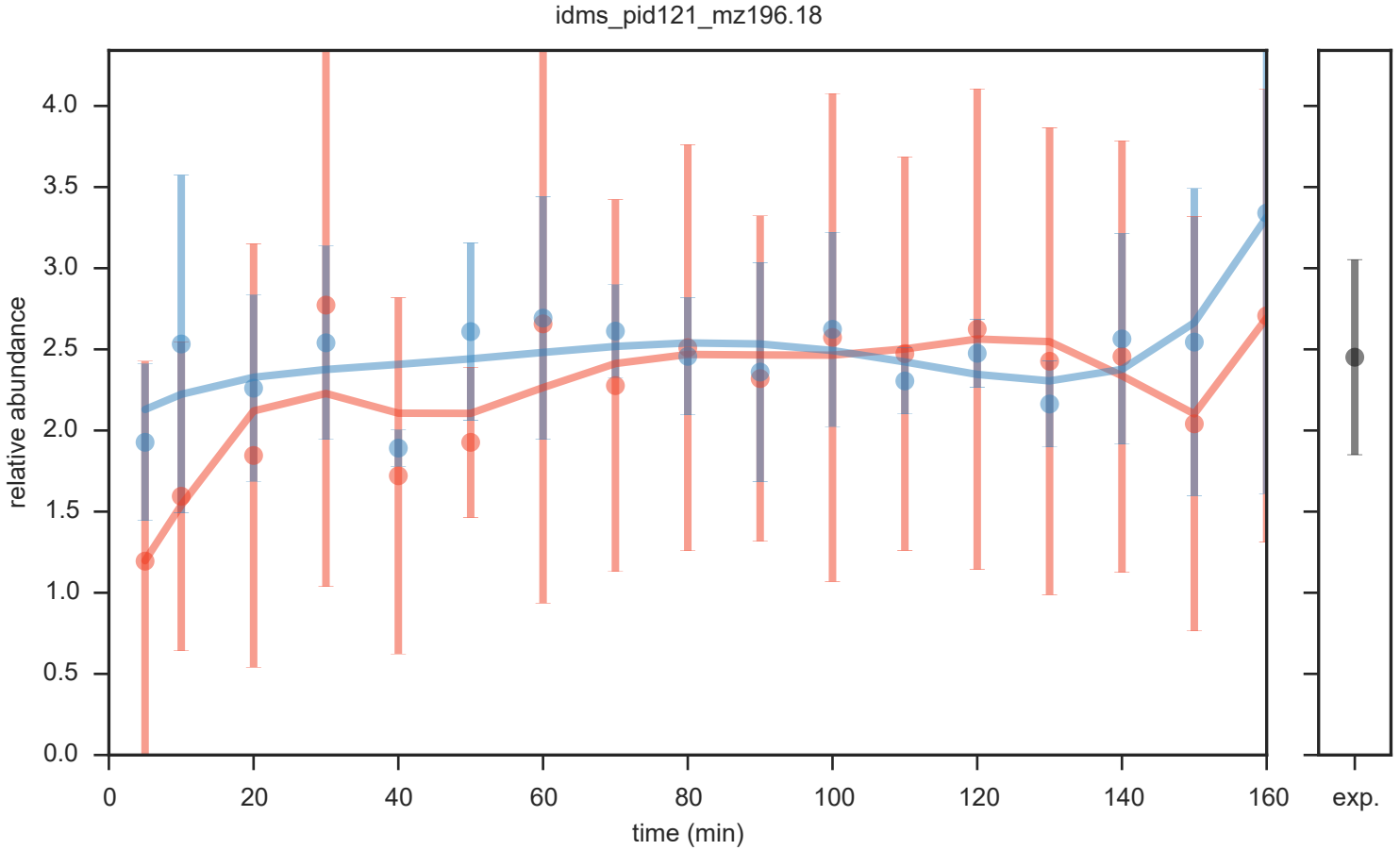

idms_pid106_mz237.09
relative abundance
2.5
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.

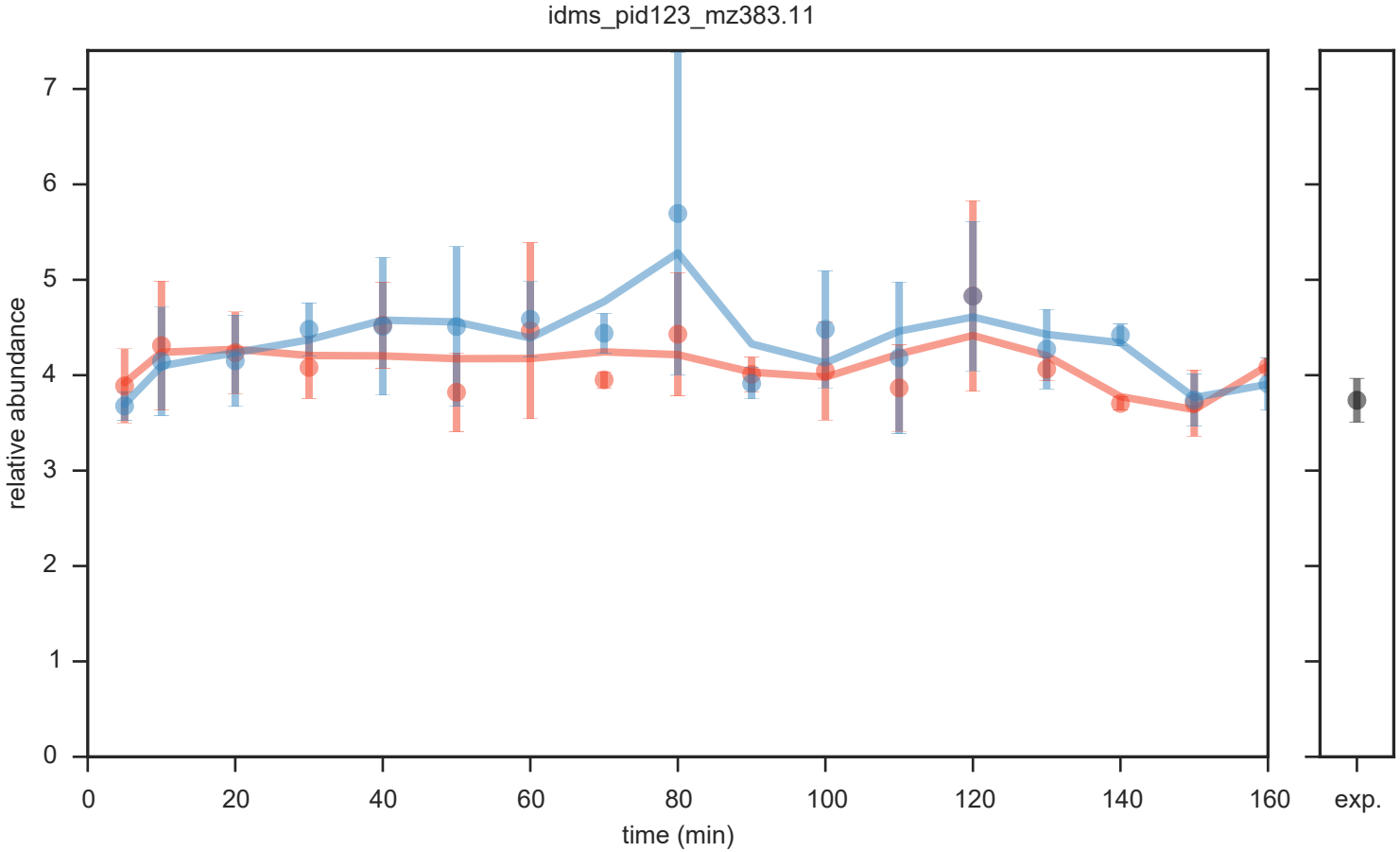

idms_pid107_mz148.06
relative abundance
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
0
20
40
60
80
100
120
140
160
time (min)
exp.

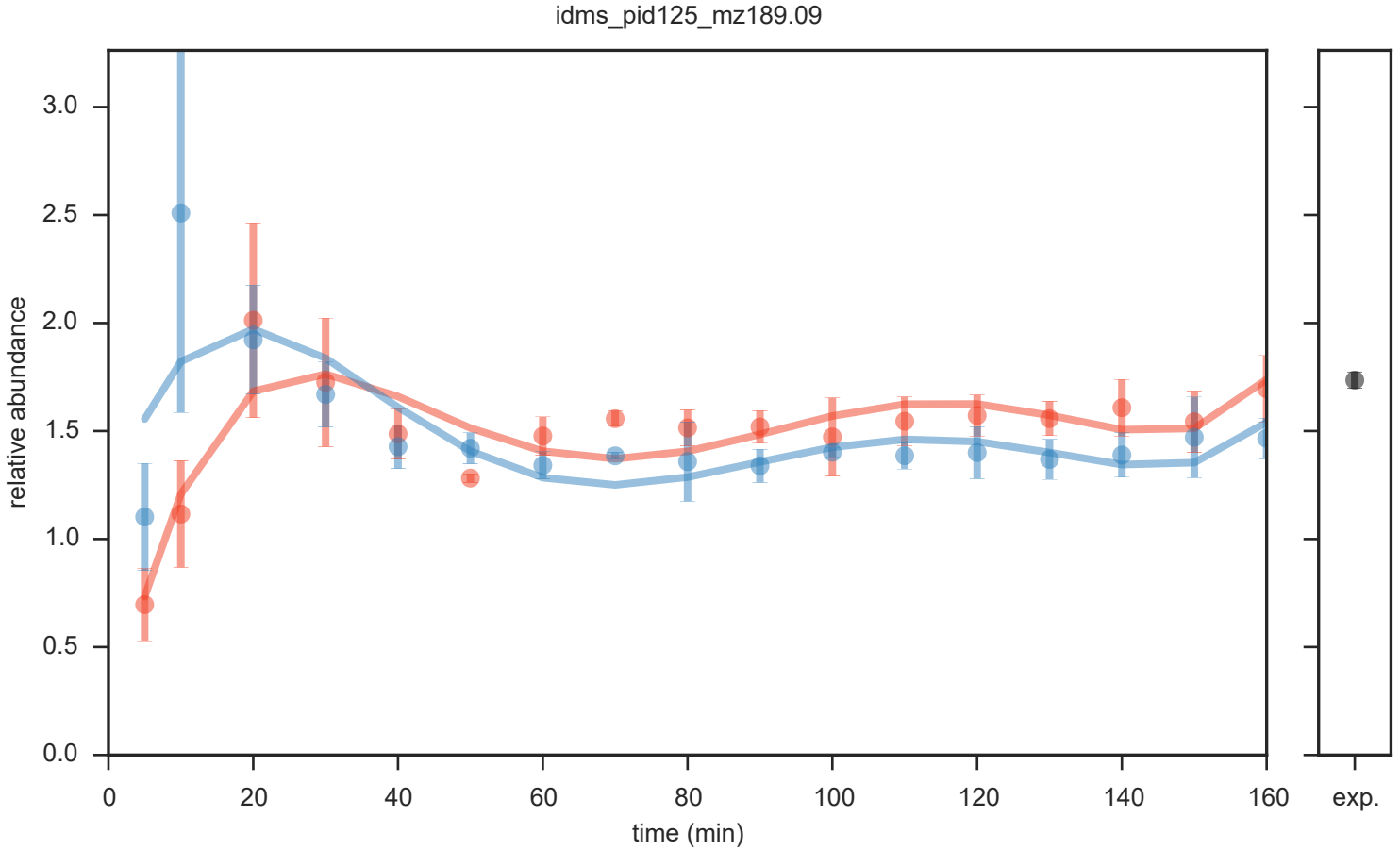

idms_pid111_mz308.09
relative abundance
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.

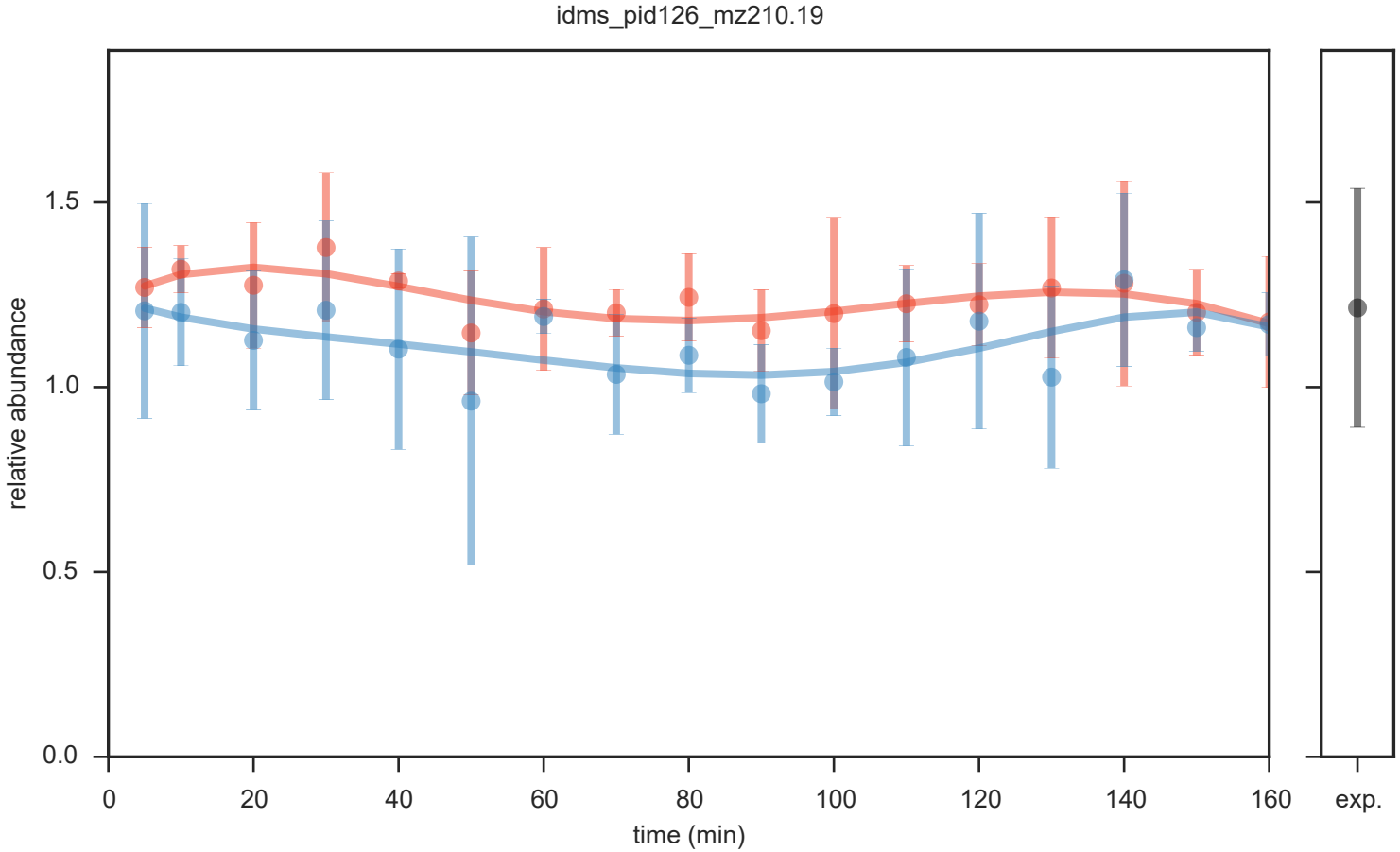

idms_pid112_mz150.05
relative abundance
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
0
20
40
60
80
100
120
140
160
time (min)
exp.

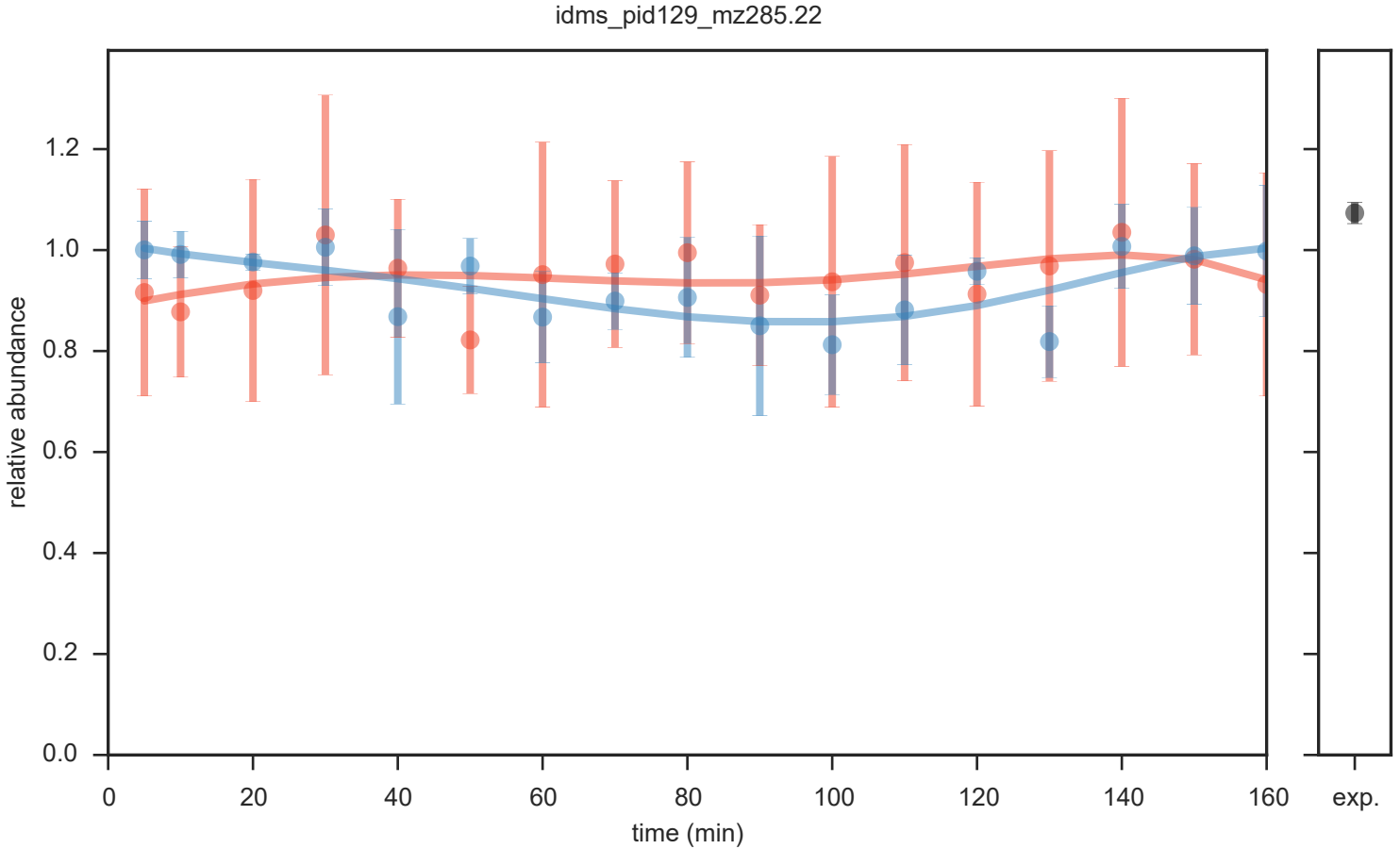

idms_pid116_mz90.054
relative abundance
0
1
2
3
4
0
20
40
60
80
100
120
140
160
time (min)
exp.

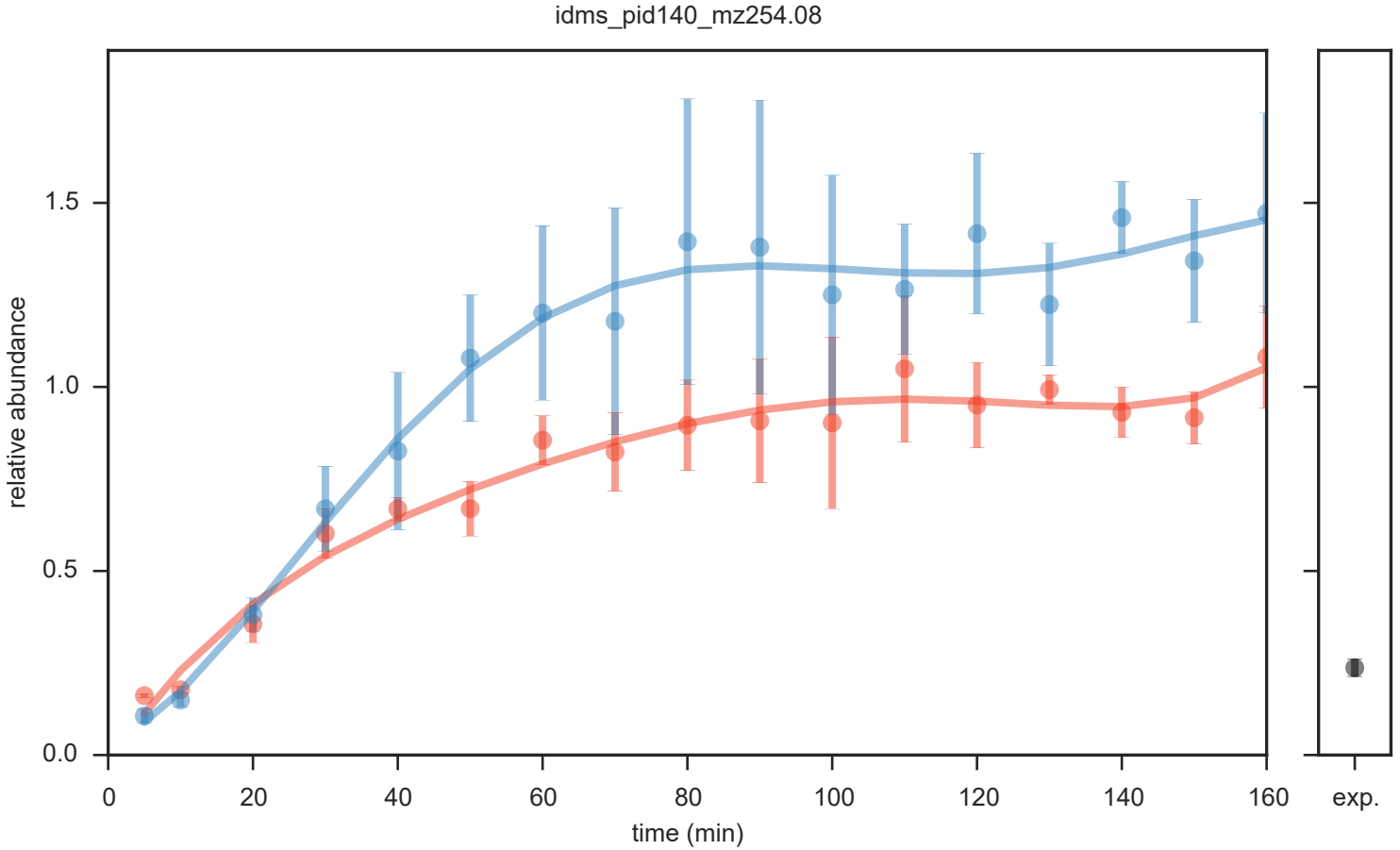

idms_pid121_mz196.18
relative abundance
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0
20
40
60
80
100
120
140
160
time (min)
exp.

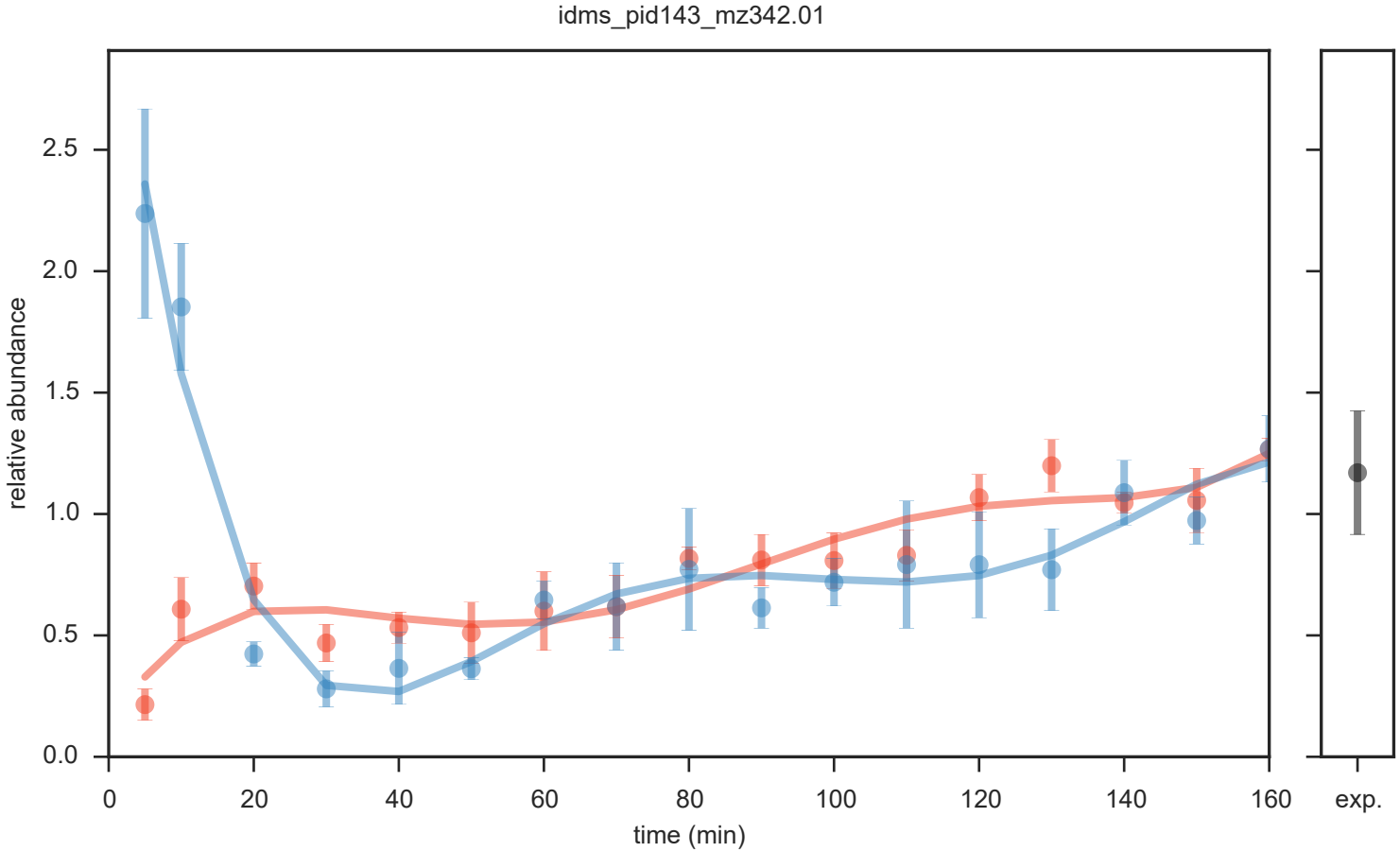

idms_pid123_mz383.11
relative abundance
0
1
2
3
4
5
6
7
0
20
40
60
80
100
120
140
160
time (min)
exp.

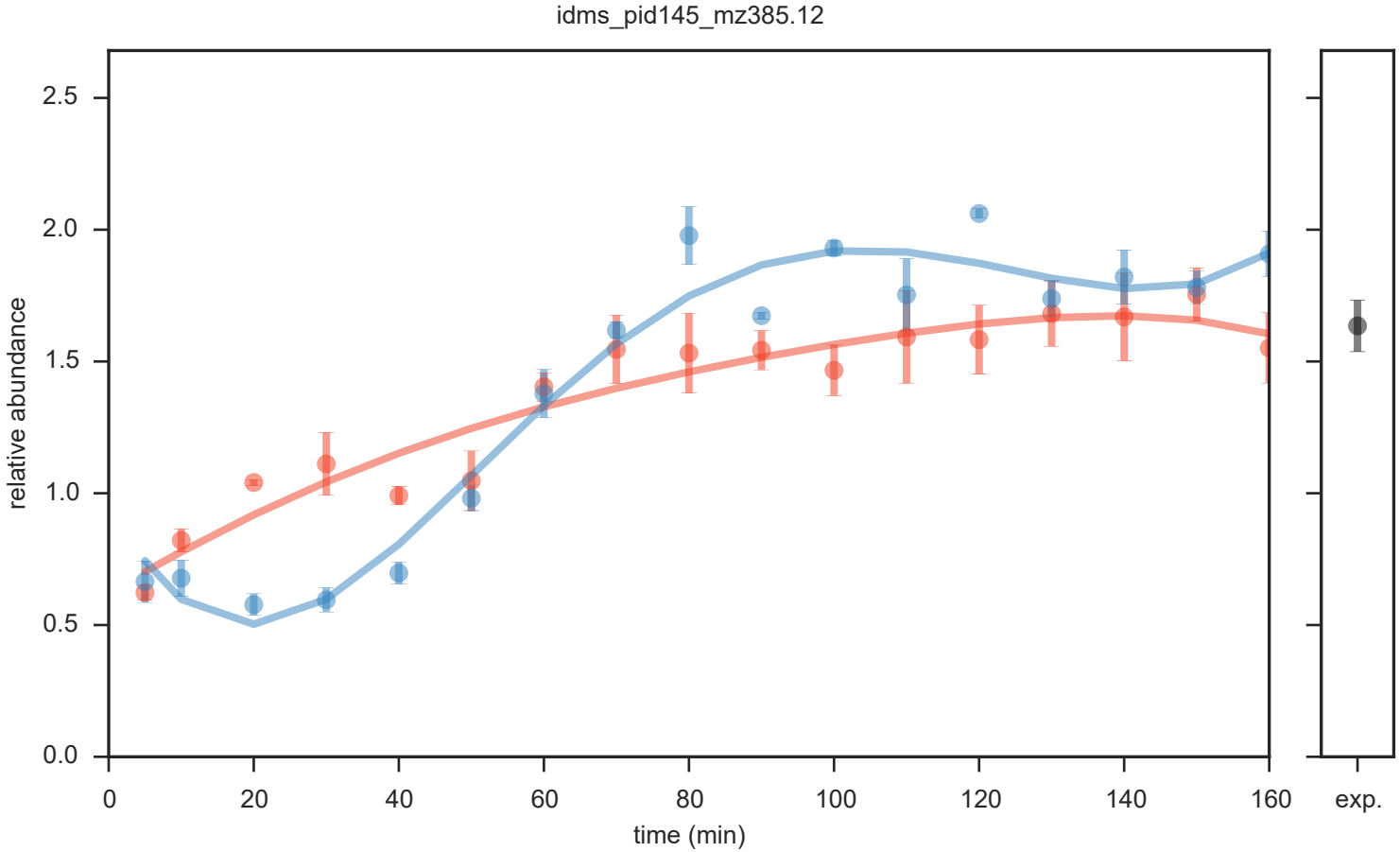

idms_pid125_mz189.09
relative abundance
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.

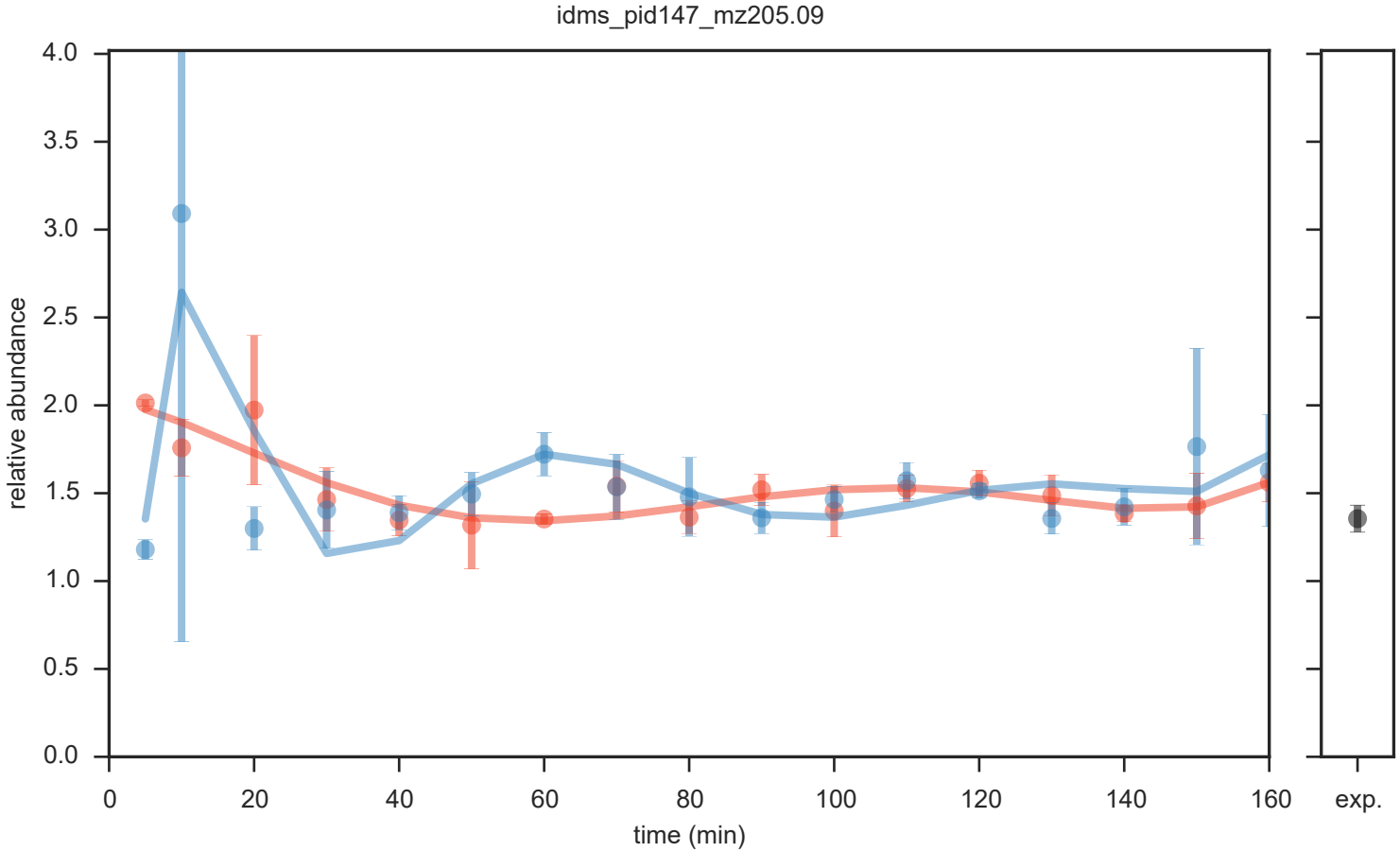

idms_pid126_mz210.19
relative abundance
0.0
0.5
1.0
1.5
0
20
40
60
80
100
120
140
160
time (min)
exp.

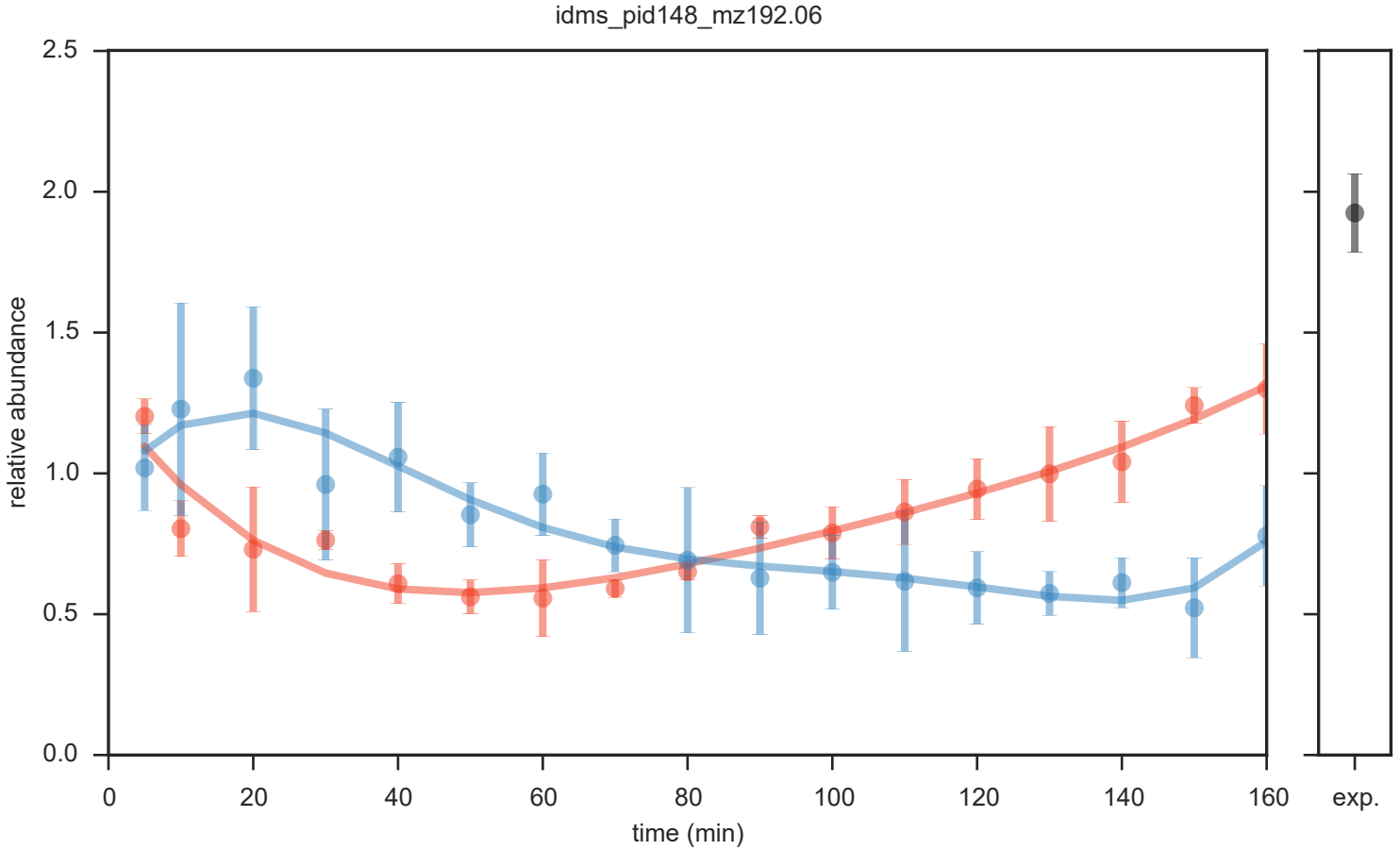

idms_pid129_mz285.22
relative abundance
0.0
0.2
0.4
0.6
0.8
1.0
1.2
0
20
40
60
80
100
120
140
160
time (min)
exp.

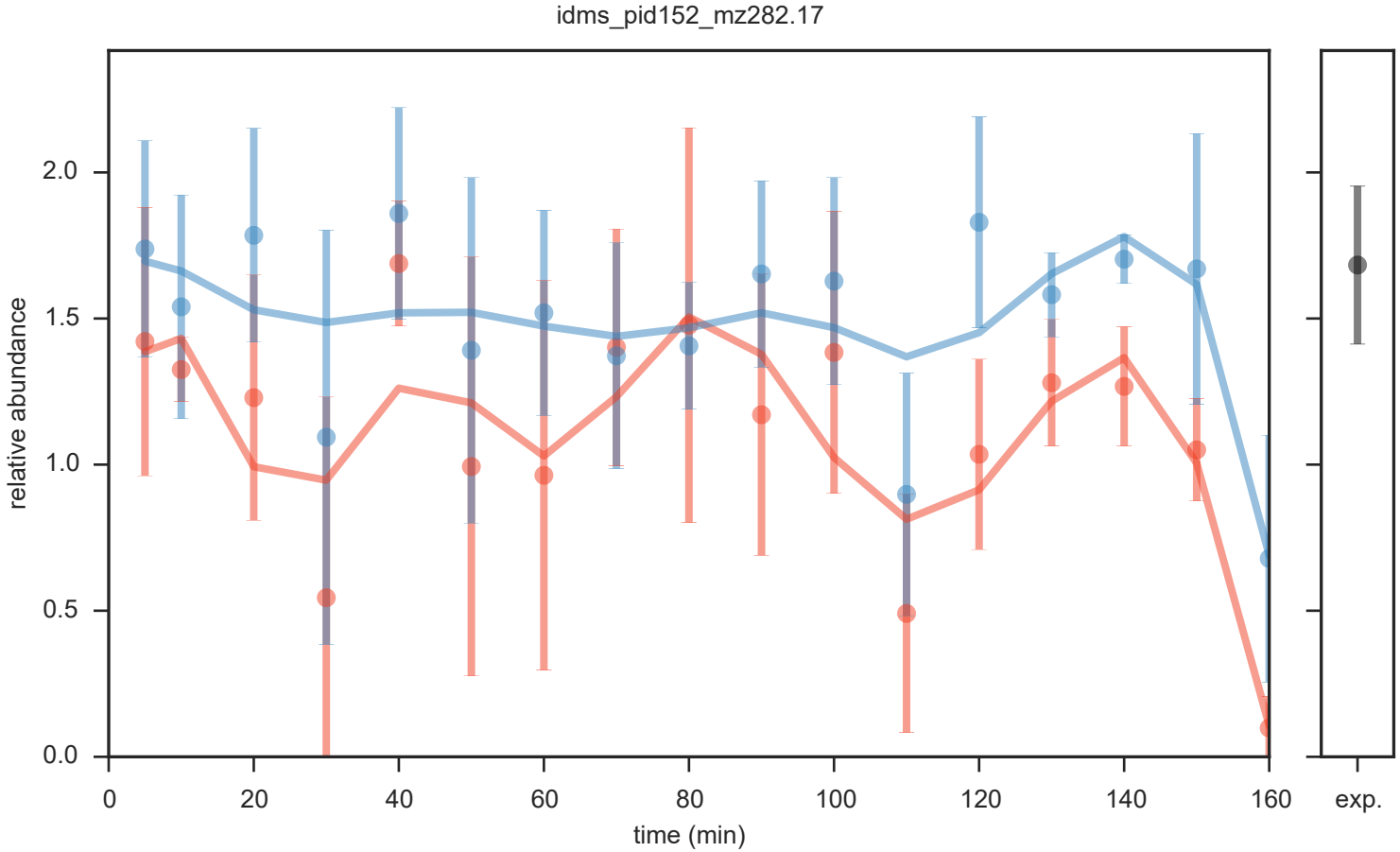

idms_pid140_mz254.08
relative abundance
0.0
0.5
1.0
1.5
0
20
40
60
80
100
120
140
160
time (min)
exp.

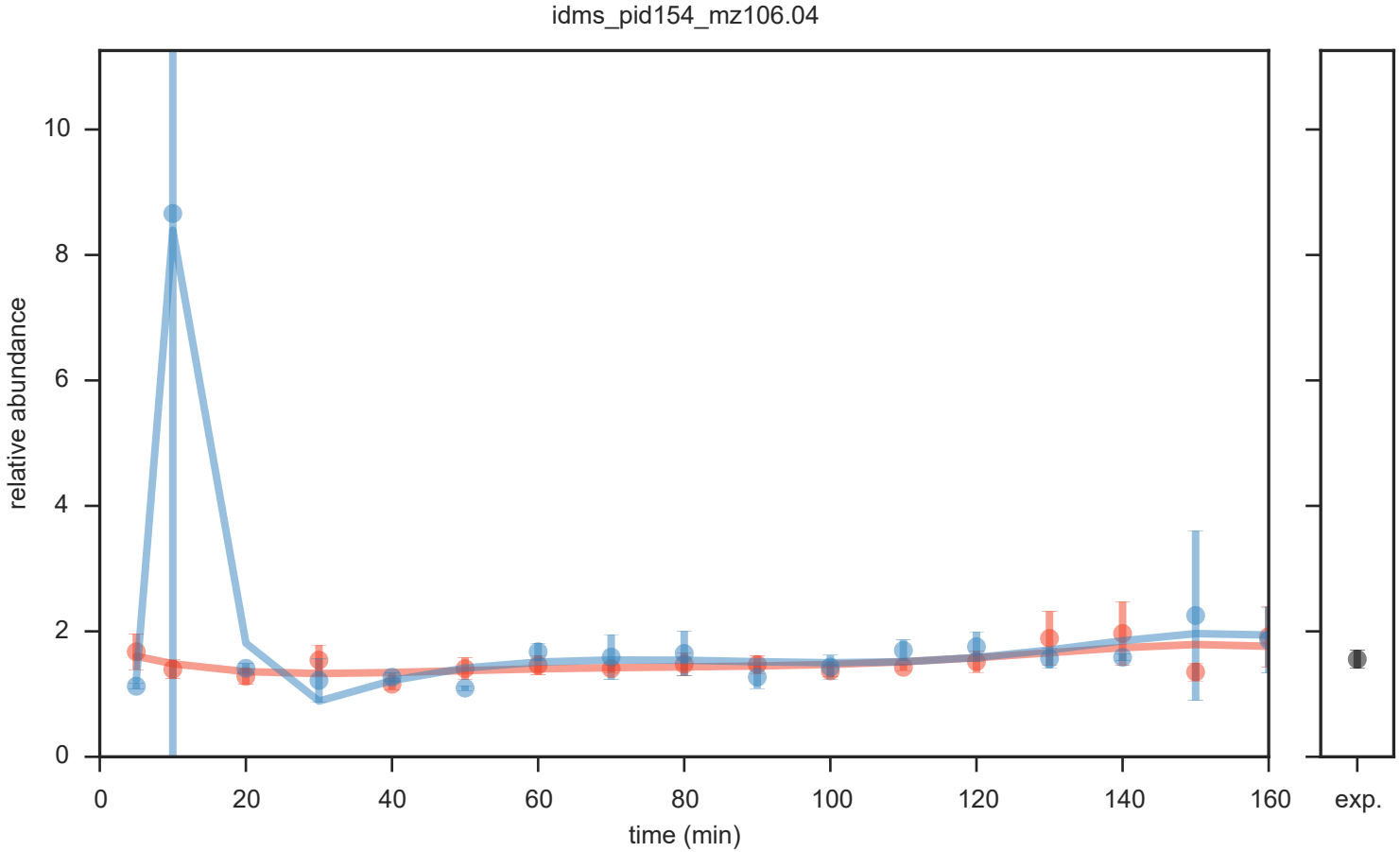

idms_pid143_mz342.01
relative abundance
0.0
0.5
1.0
1.5
2.0
2.5
0
20
40
60
80
100
120
140
160
time (min)
exp.

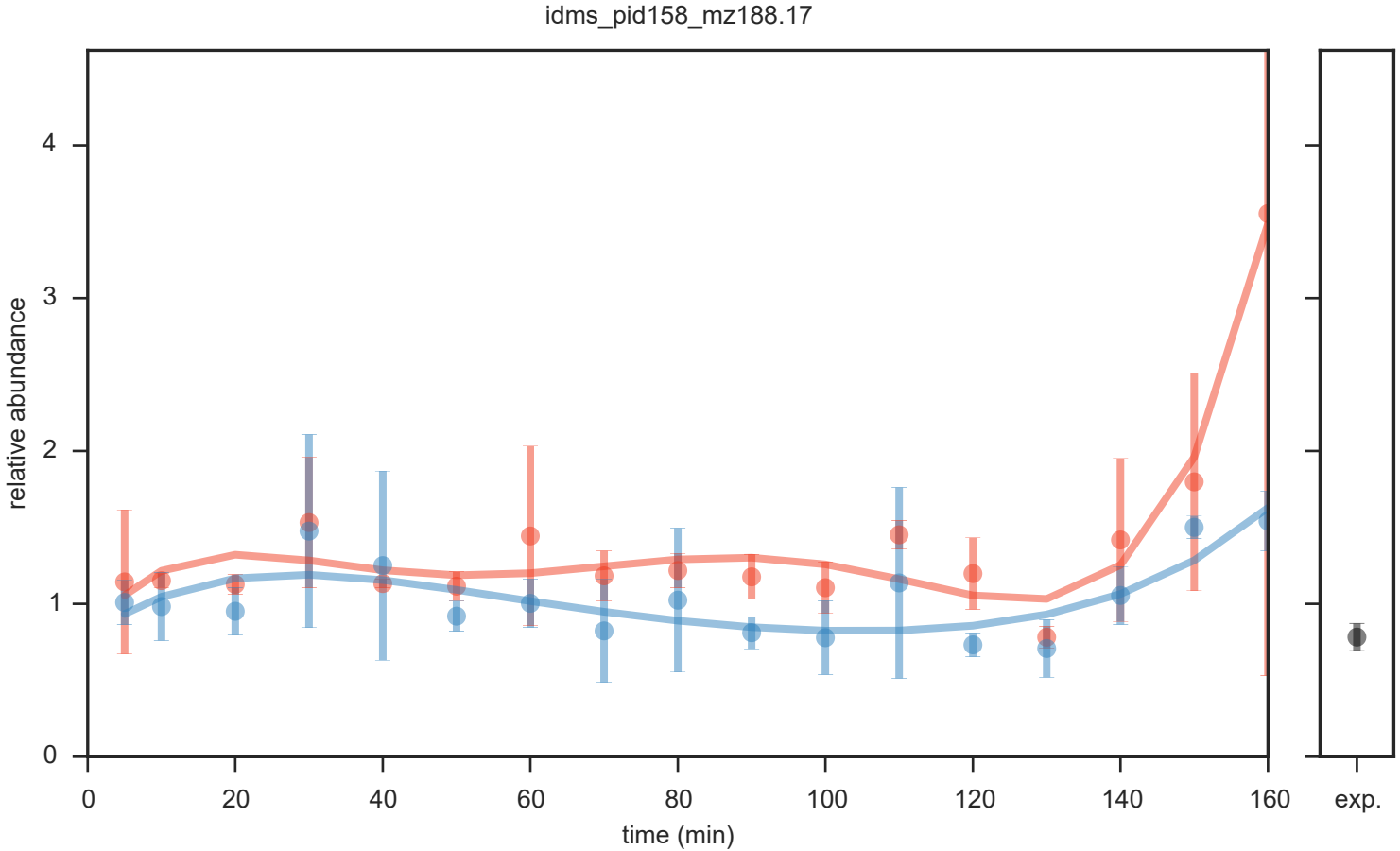

idms_pid145_mz385.12
relative abundance
2.5
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.

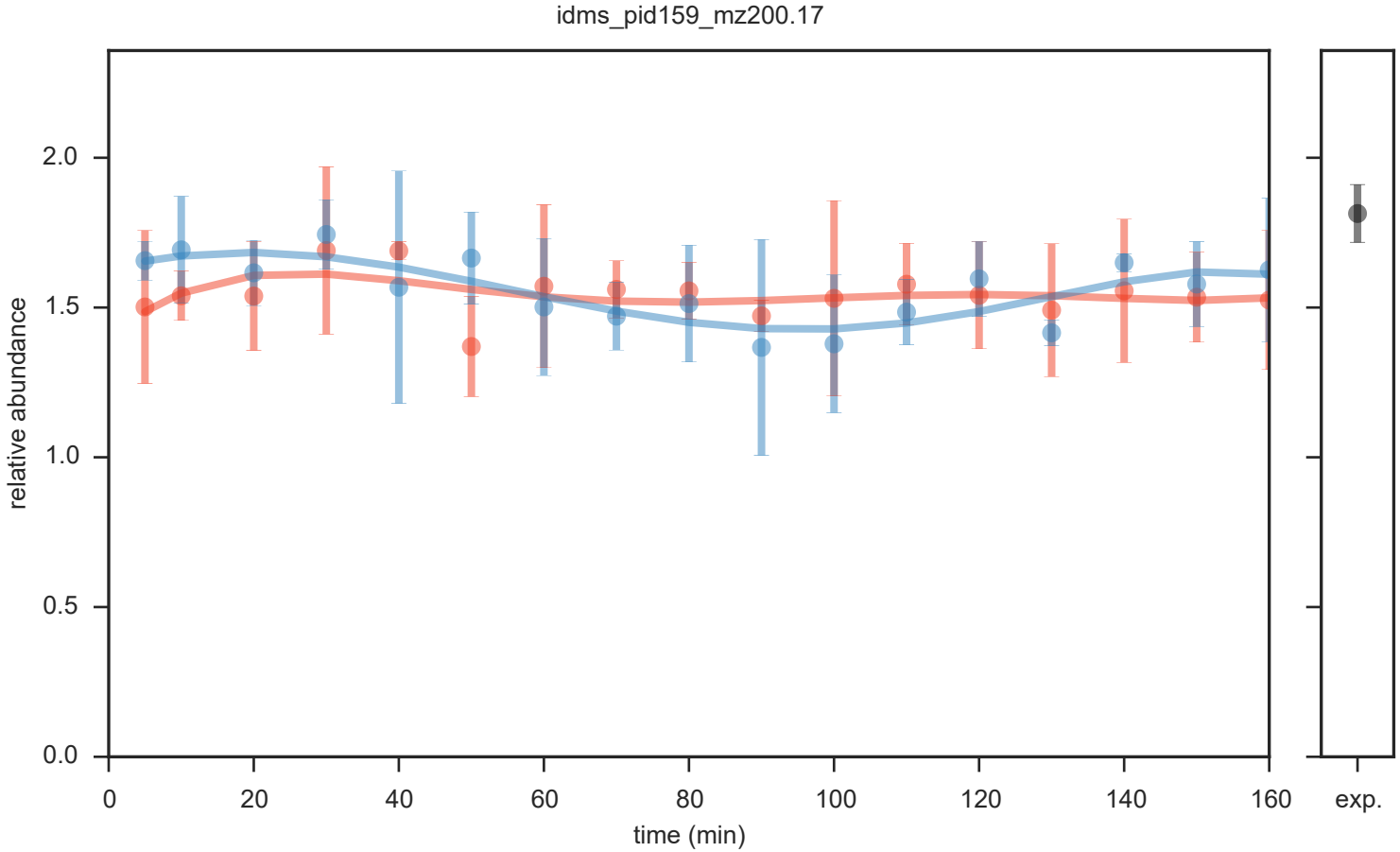

idms_pid147_mz205.09
relative abundance
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.

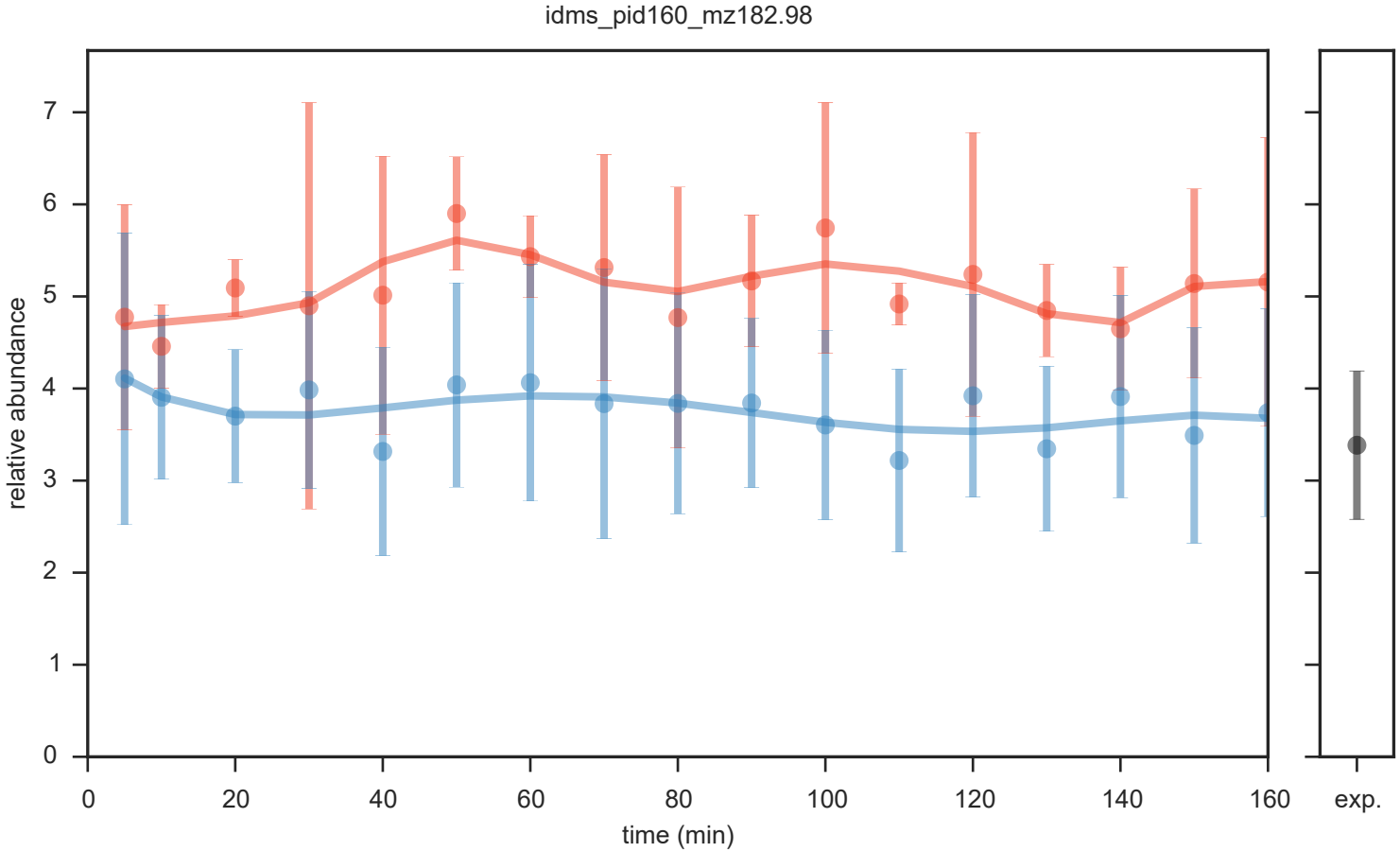

idms_pid148_mz192.06
relative abundance
time (min)
exp.
0.0
0.5
1.0
1.5
2.0
2.5
0
20
40
60
80
100
120
140
160

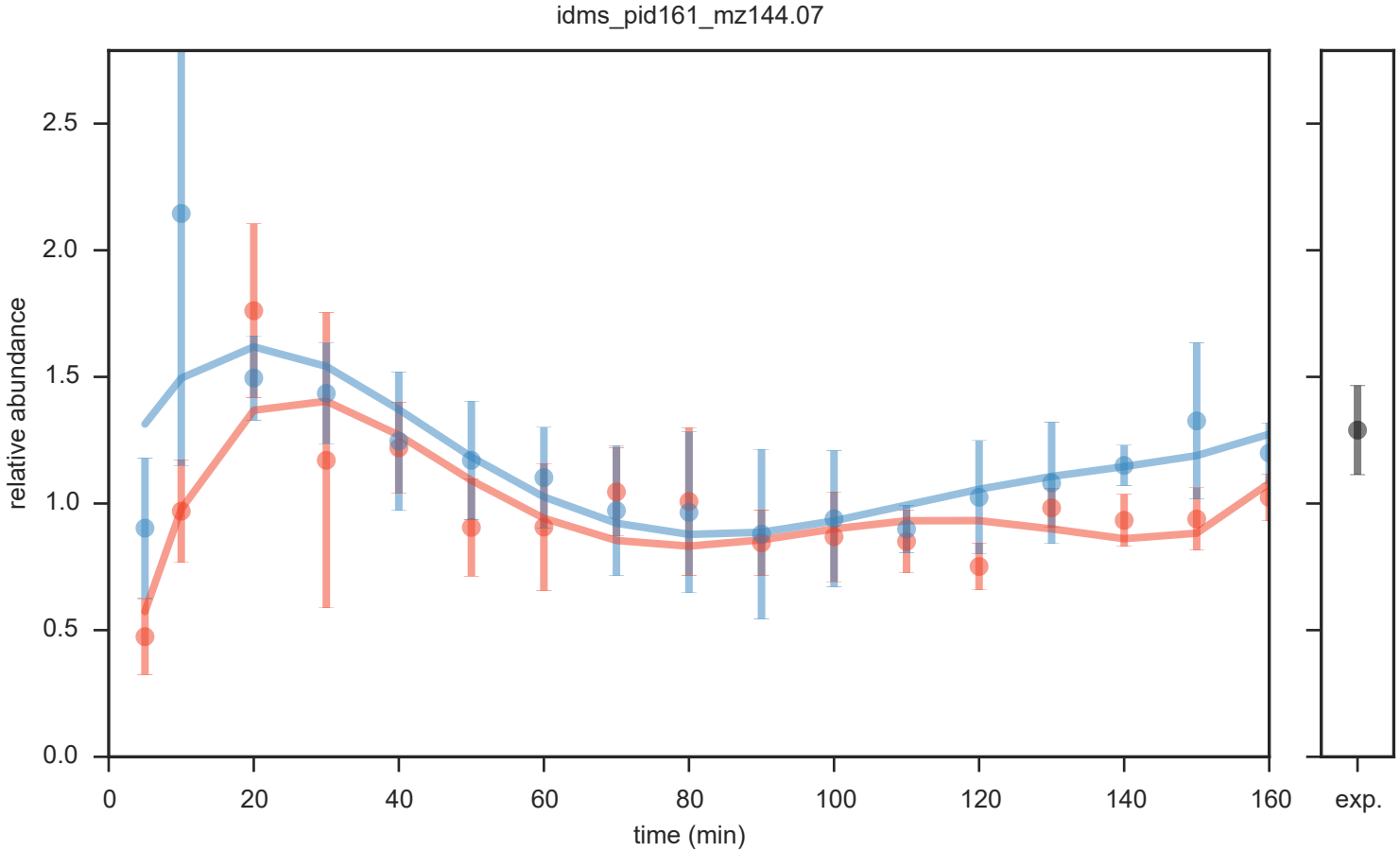

idms_pid152_mz282.17
relative abundance
0.0
0.5
1.0
1.5
2.0
0
20
40
60
80
100
120
140
160
time (min)
exp.

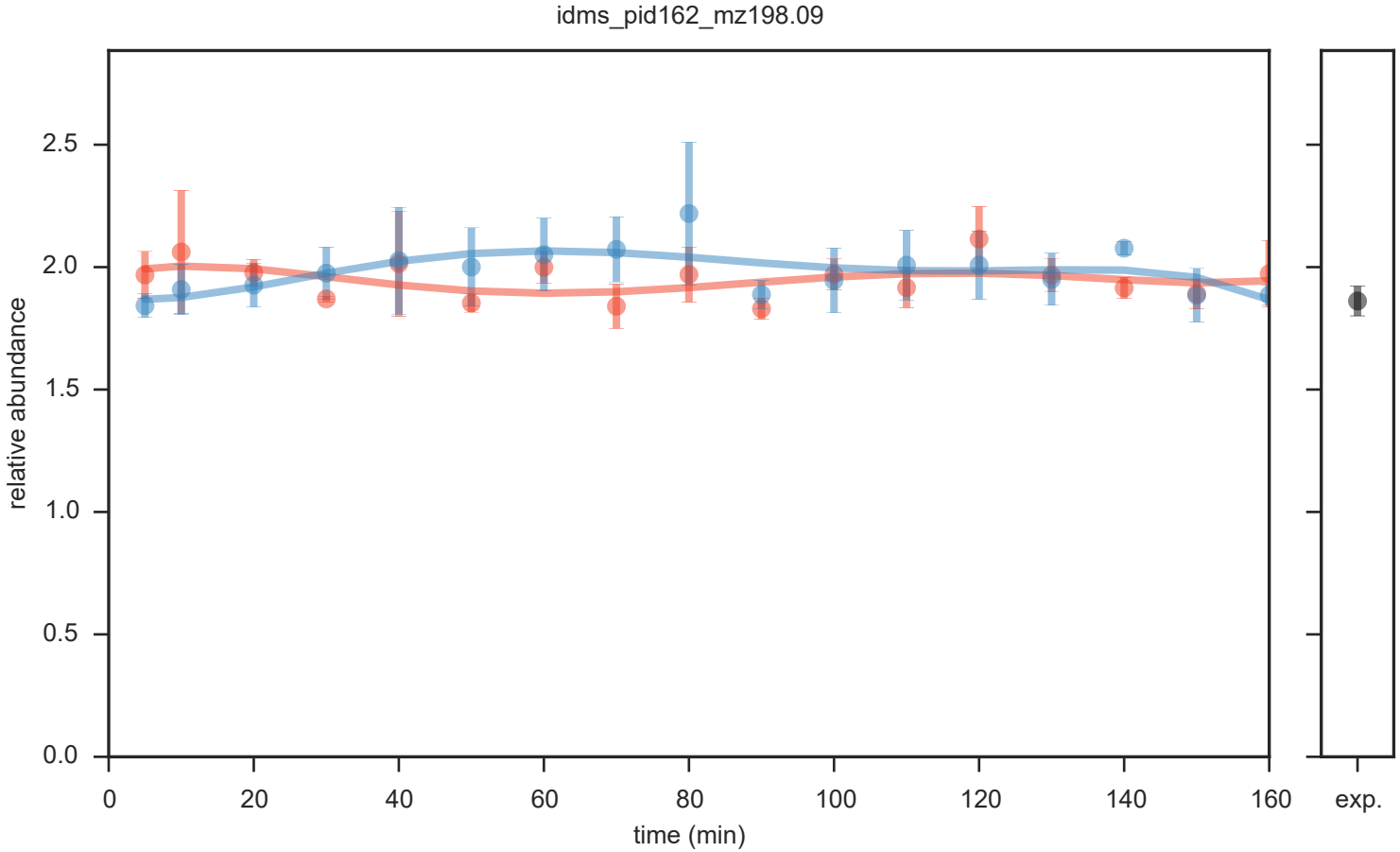

idms_pid154_mz106.04
relative abundance
0
2
4
6
8
10
0
20
40
60
80
100
120
140
160
time (min)
exp.

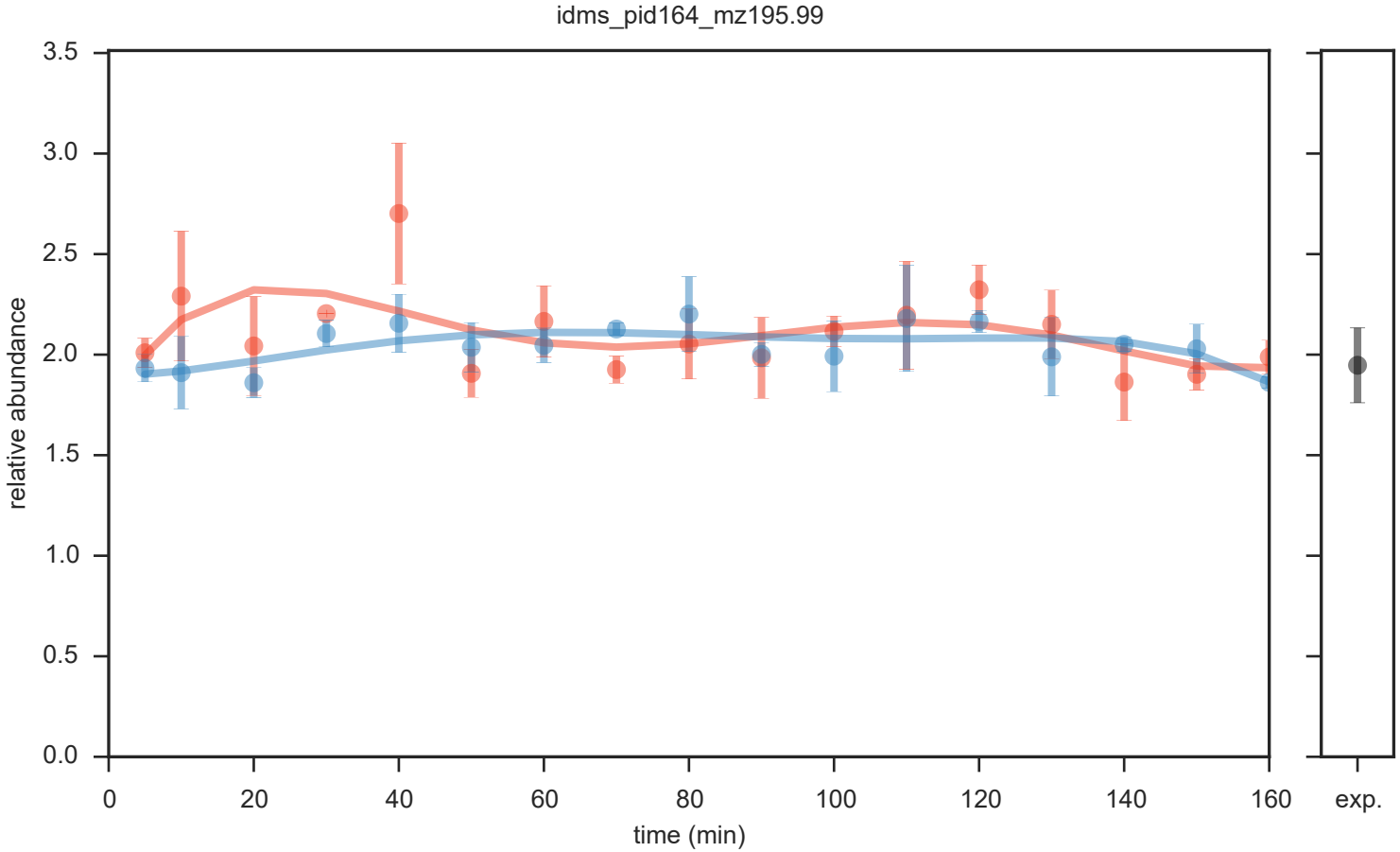

idms_pid158_mz188.17
relative abundance
0
1
2
3
4
0
20
40
60
80
100
120
140
160
time (min)
exp.

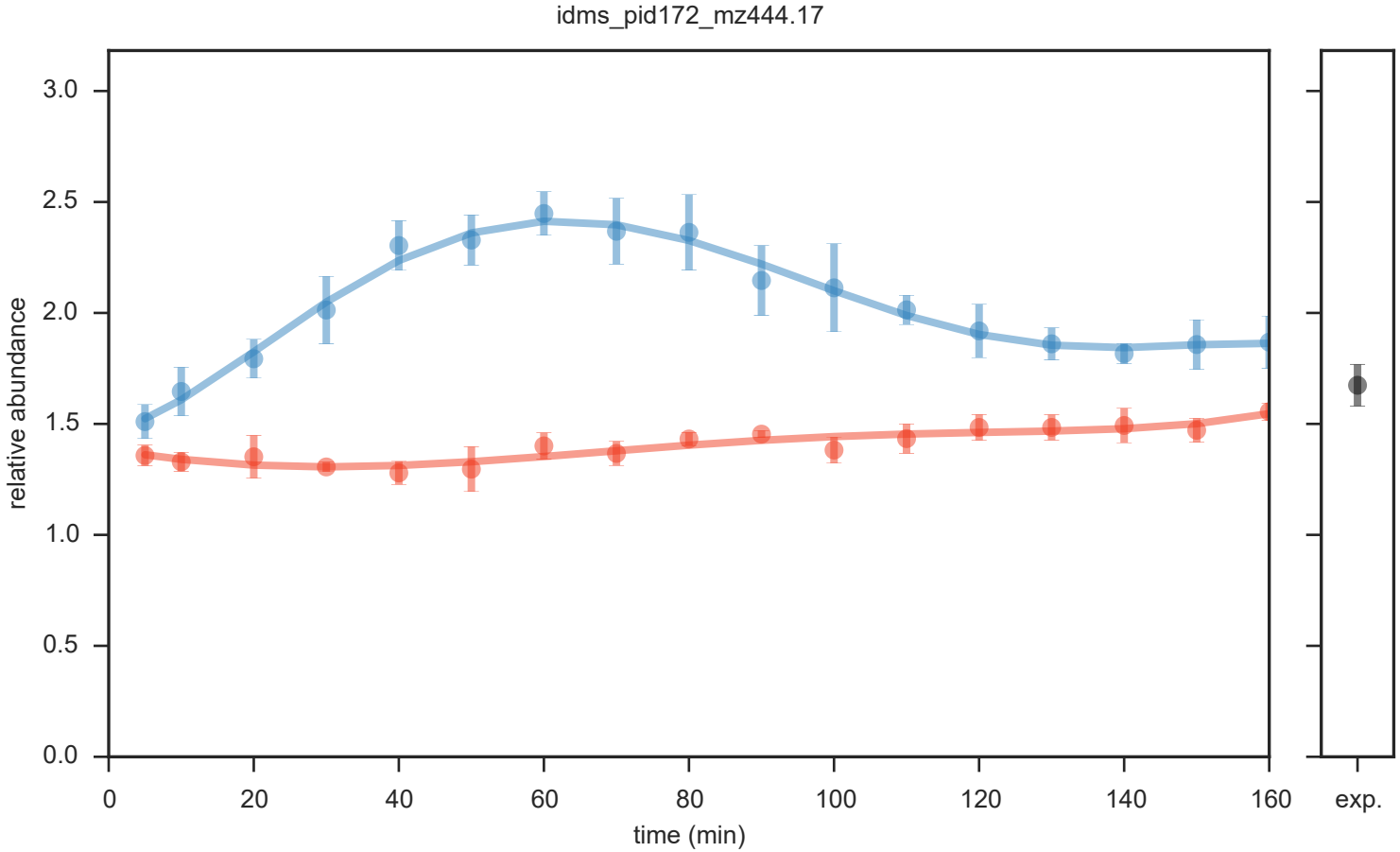

idms_pid159_mz200.17
relative abundance
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.

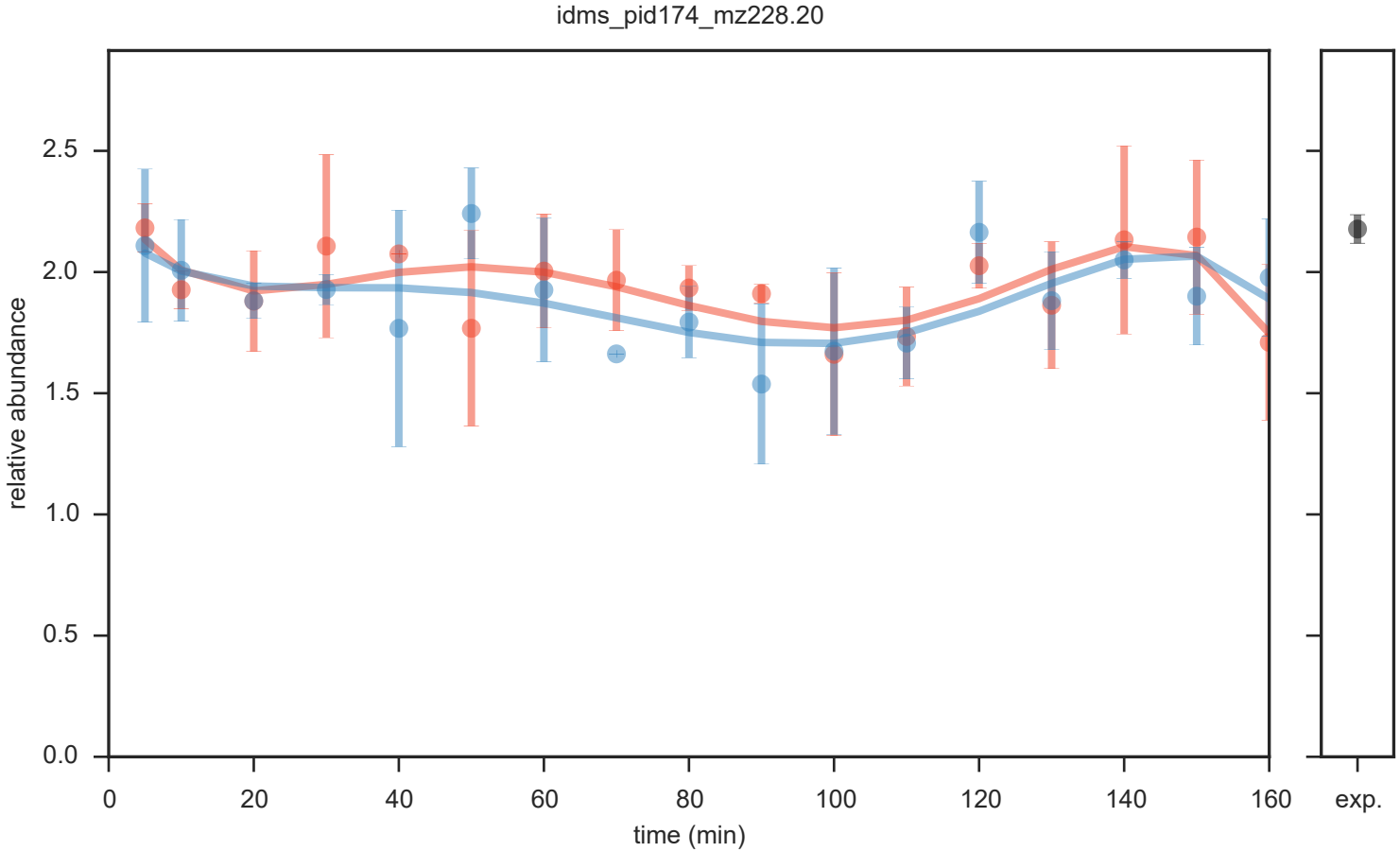

idms_pid160_mz182.98
relative abundance
0
1
2
3
4
5
6
7
0
20
40
60
80
100
120
140
160
time (min)
exp.

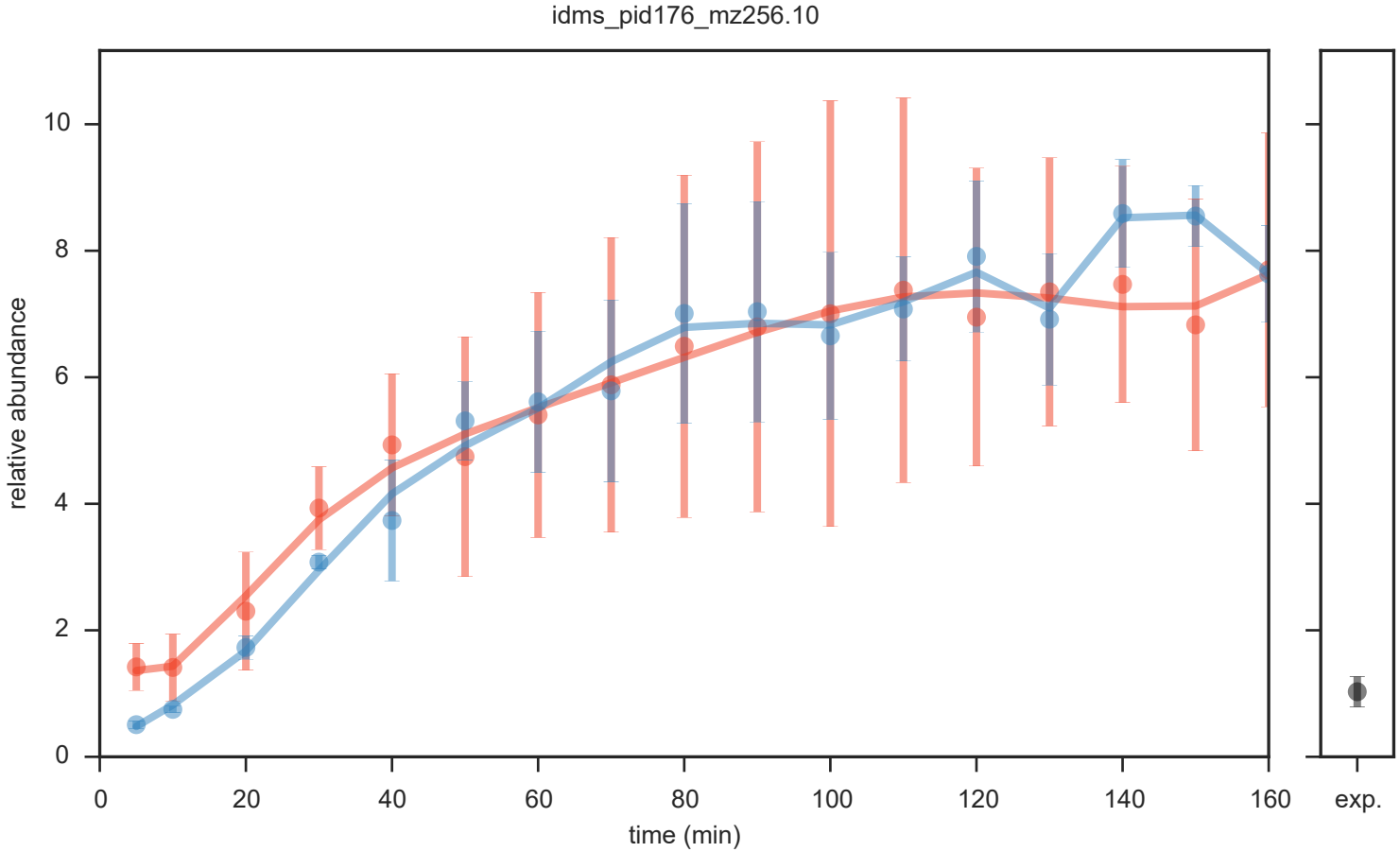

idms_pid161_mz144.07
relative abundance
0.0
0.5
1.0
1.5
2.0
2.5
0
20
40
60
80
100
120
140
160
time (min)
exp.

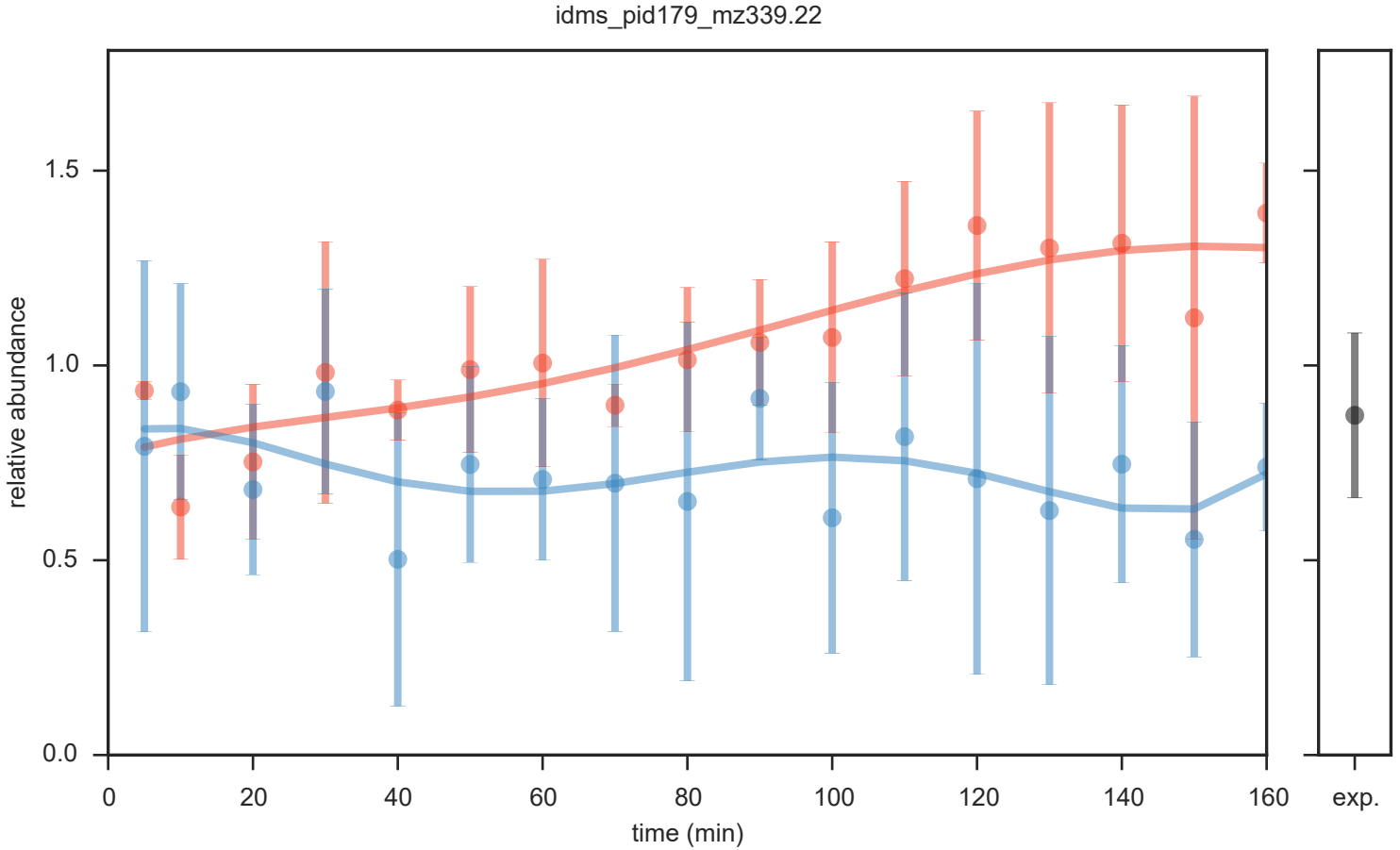

idms_pid162_mz198.09
relative abundance
2.5
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.

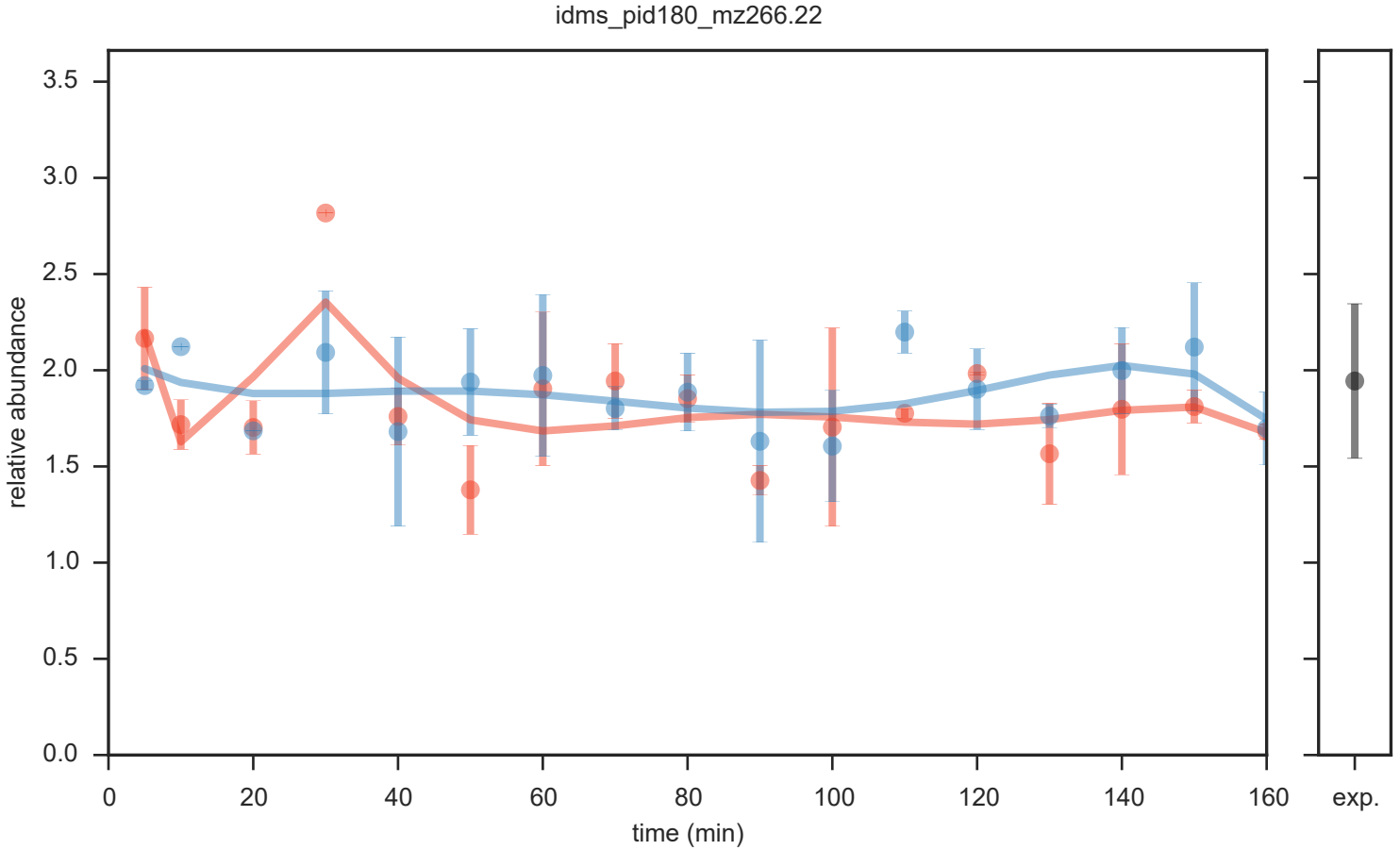

idms_pid164_mz195.99
relative abundance
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.

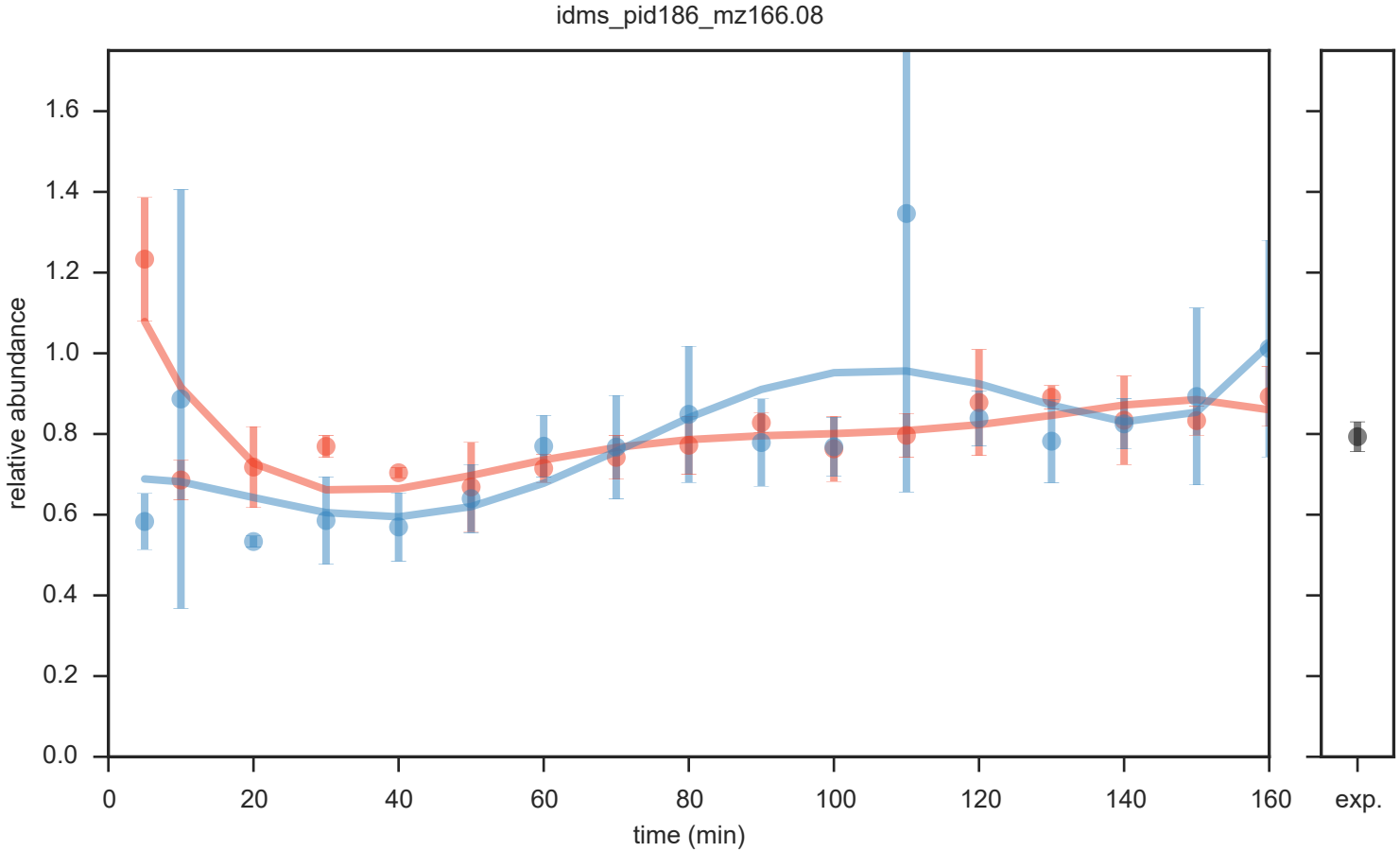

idms_pid172_mz444.17
relative abundance
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.

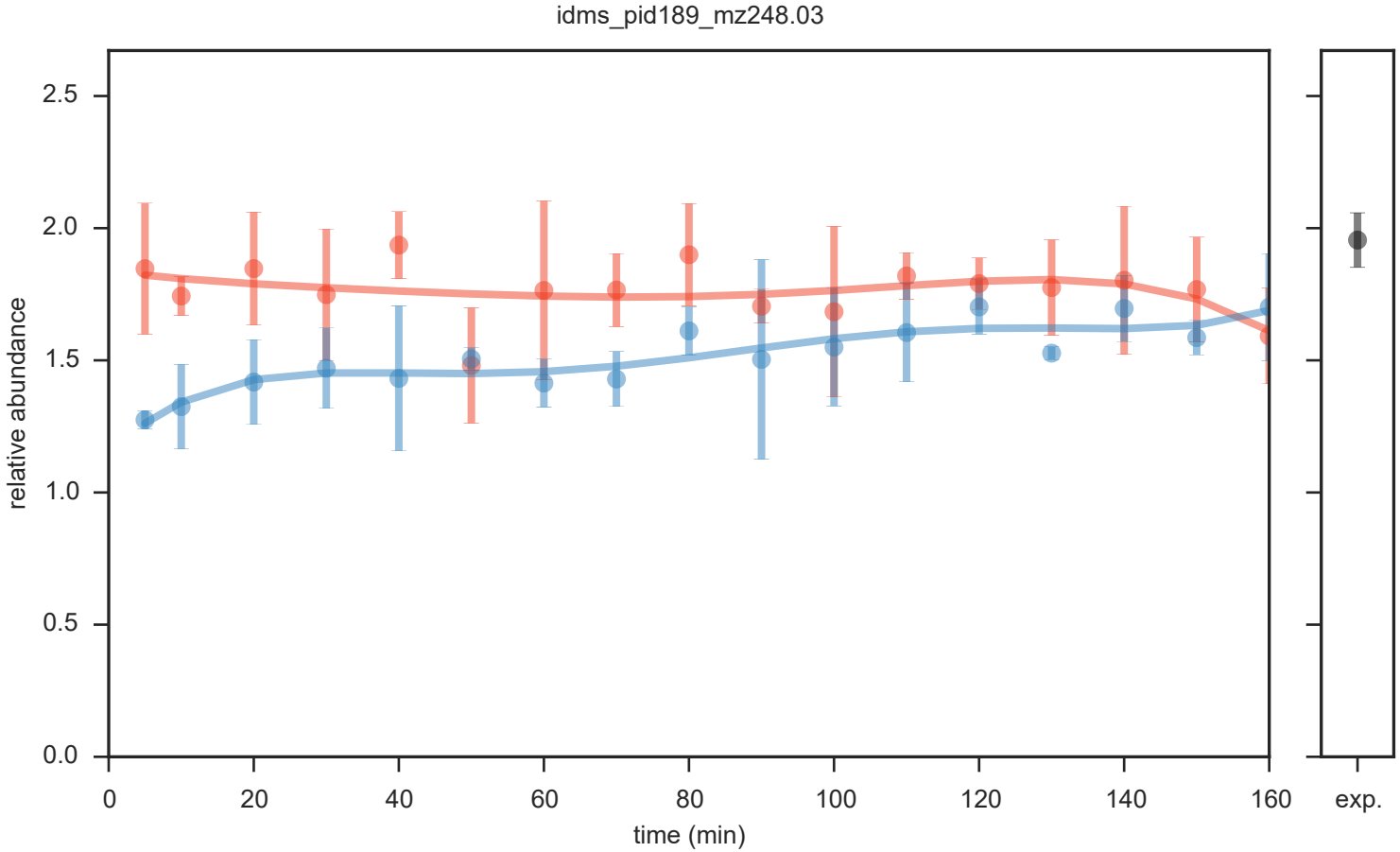

idms_pid174_mz228.20
relative abundance
0.0
0.5
1.0
1.5
2.0
2.5
0
20
40
60
80
100
120
140
160
time (min)
exp.

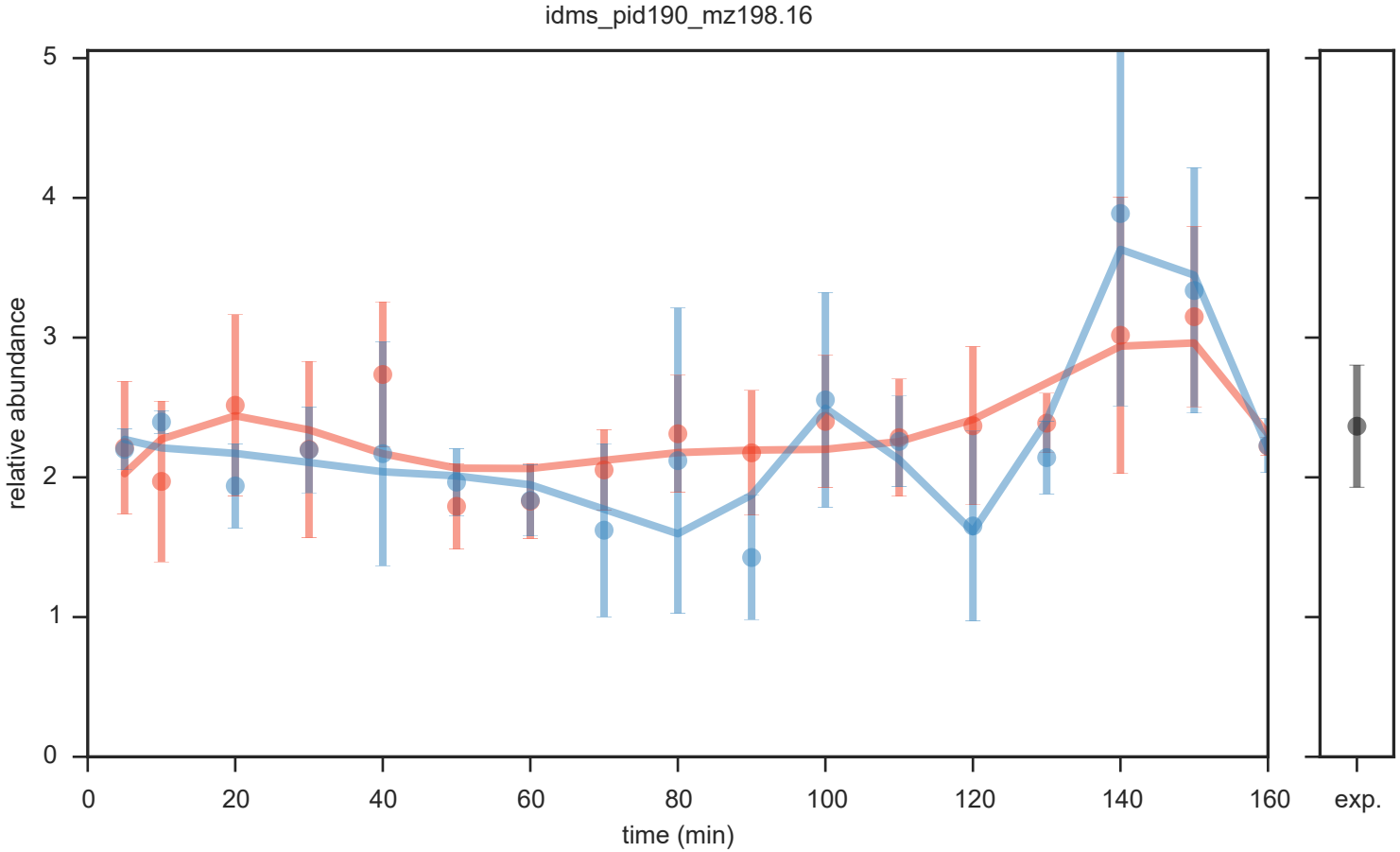

idms_pid176_mz256.10
relative abundance
0
2
4
6
8
10
0
20
40
60
80
100
120
140
160
time (min)
exp.

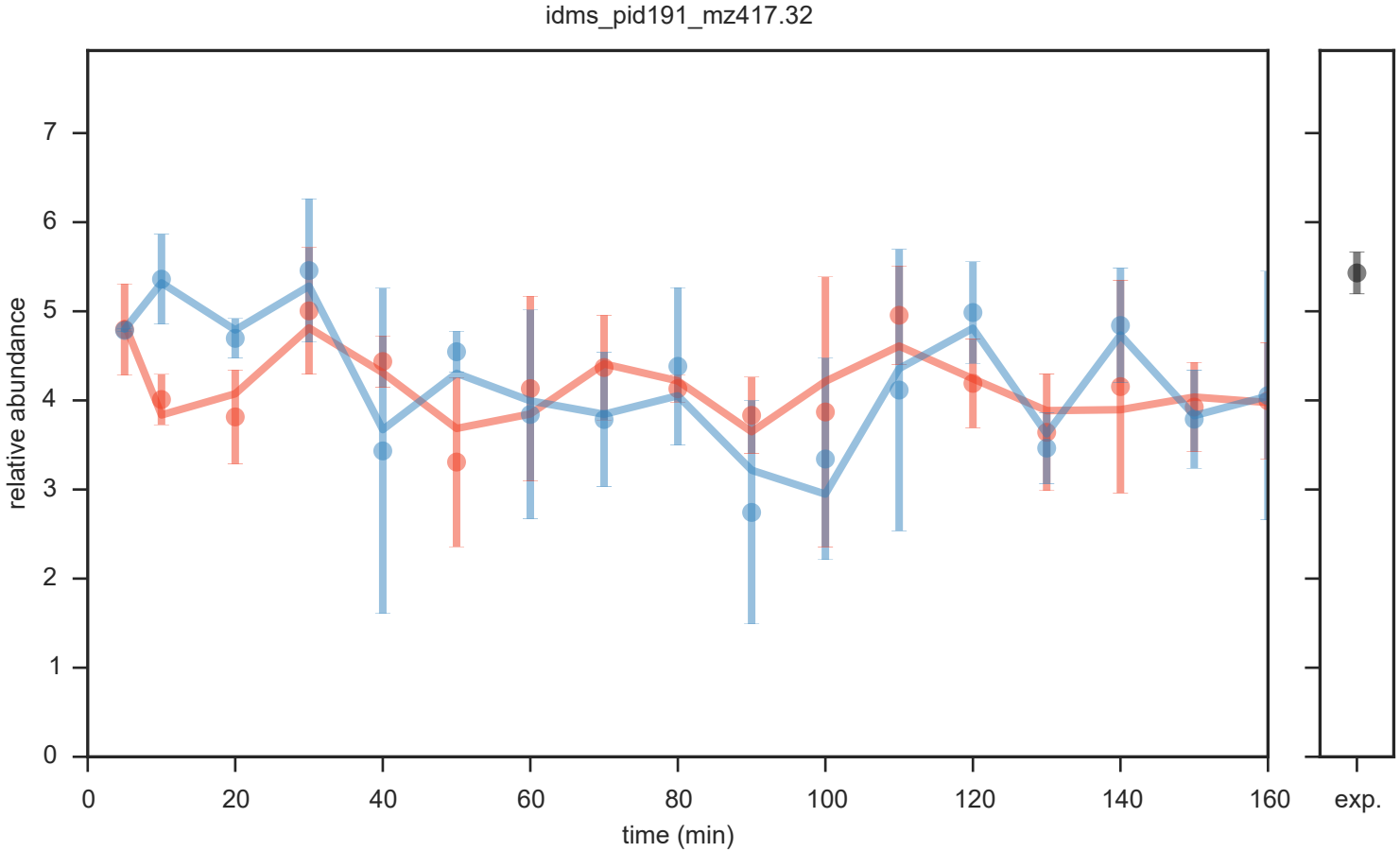

idms_pid179_mz339.22
relative abundance
0.0
0.5
1.0
1.5
0
20
40
60
80
100
120
140
160
time (min)
exp.

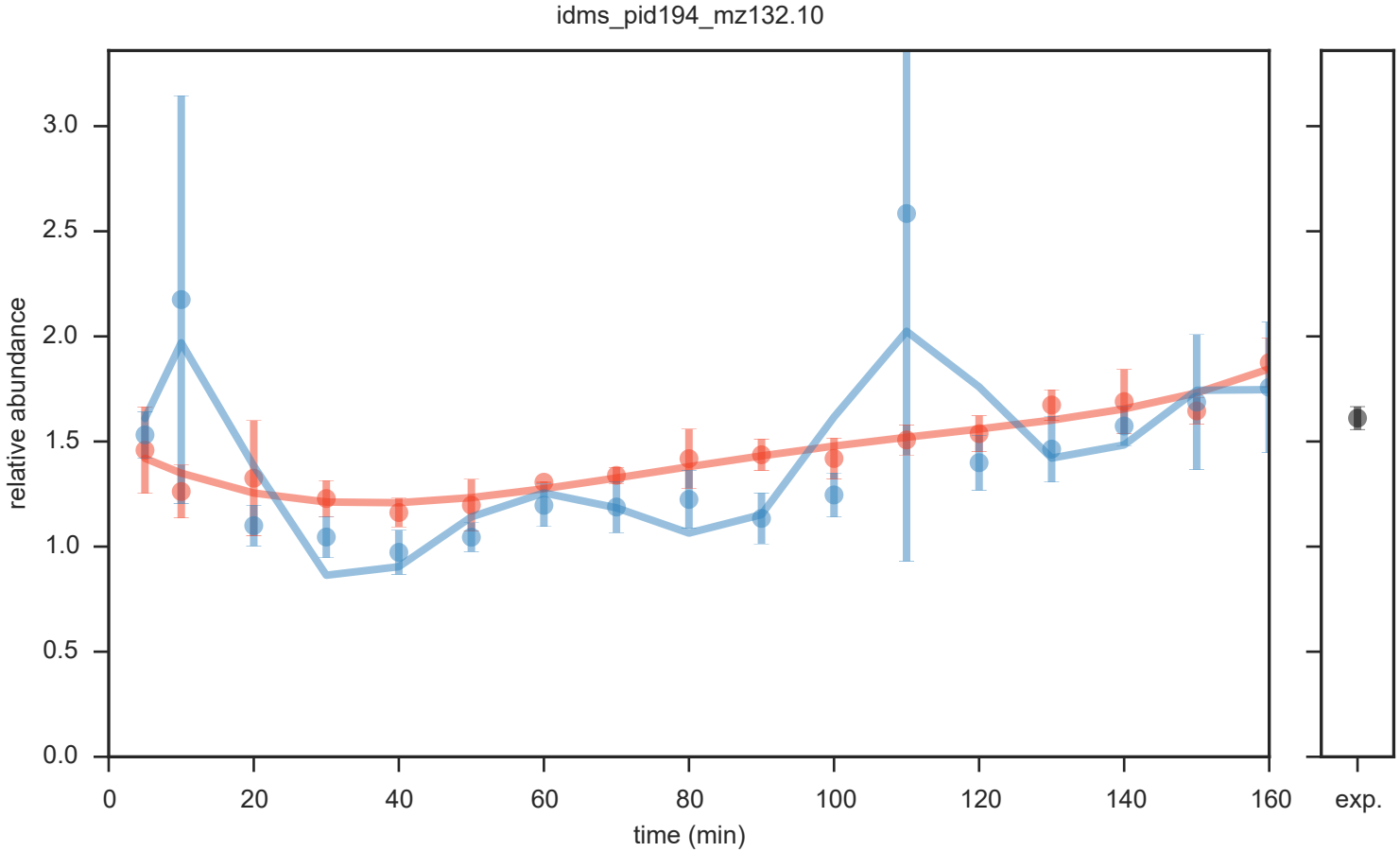

idms_pid180_mz266.22
relative abundance
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.

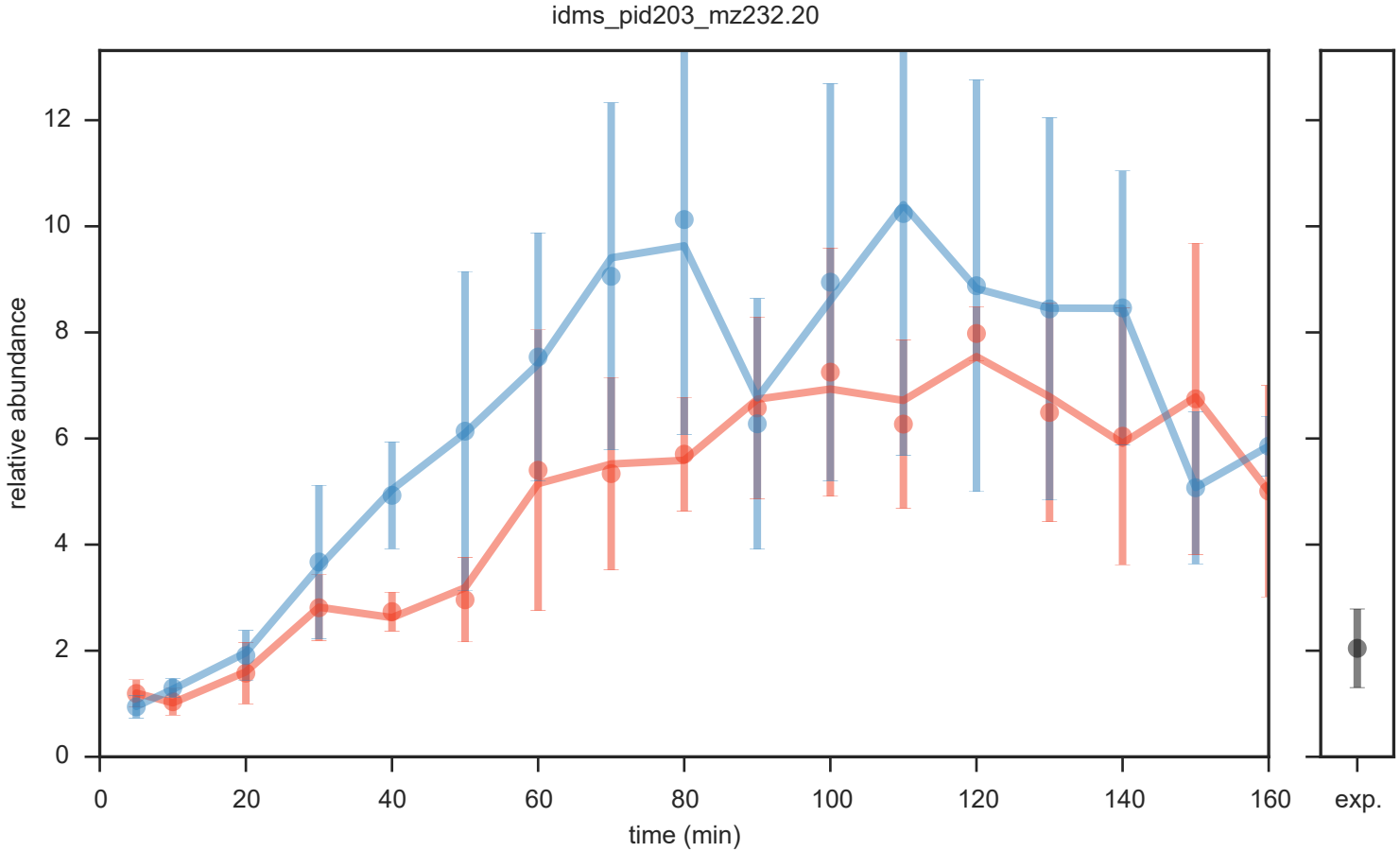

idms_pid186_mz166.08
relative abundance
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
0
20
40
60
80
100
120
140
160
time (min)
exp.

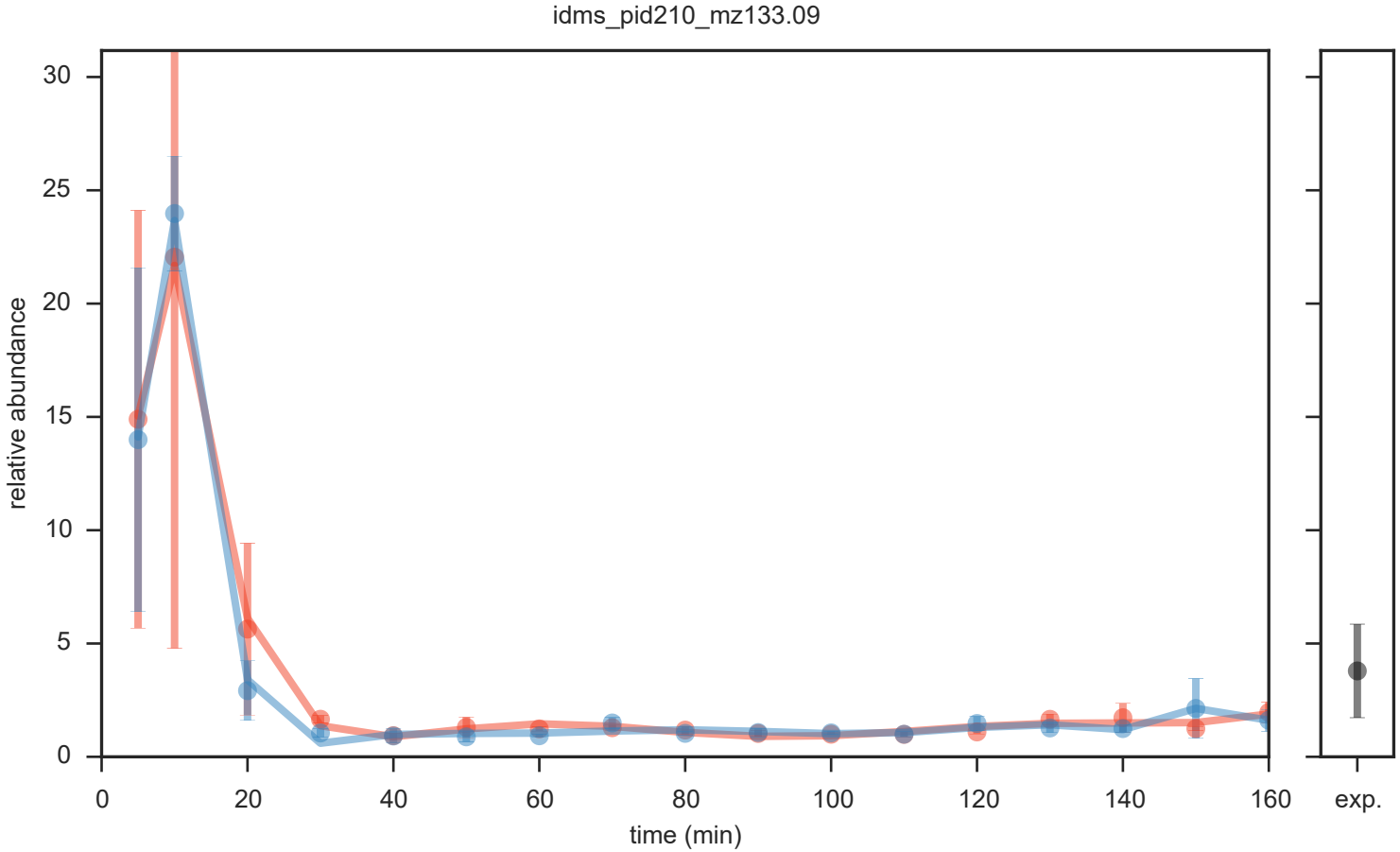

idms_pid189_mz248.03
relative abundance
2.5
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.

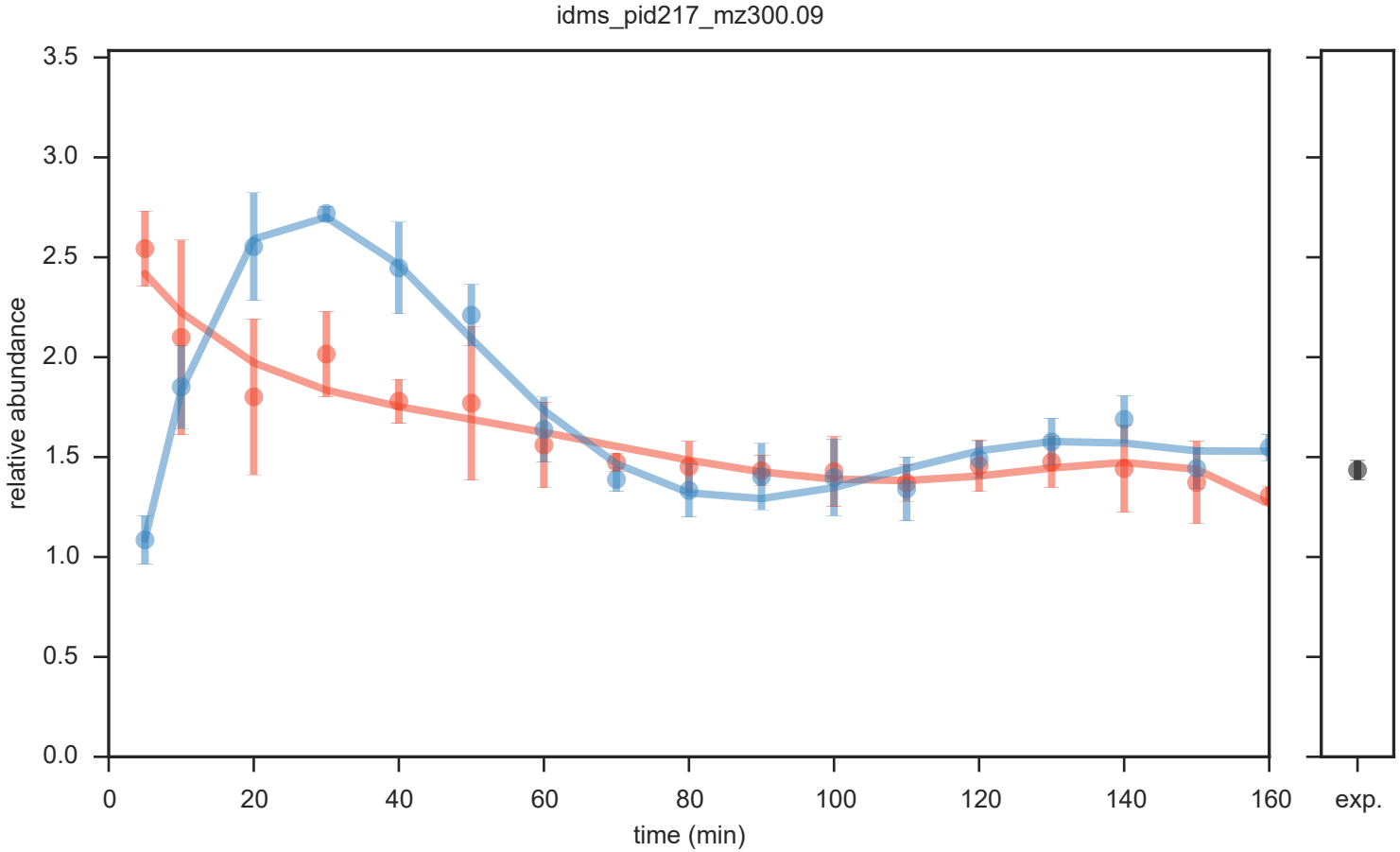

idms_pid190_mz198.16
relative abundance
time (min)
exp.
0
1
2
3
4
5
0
20
40
60
80
100
120
140
160

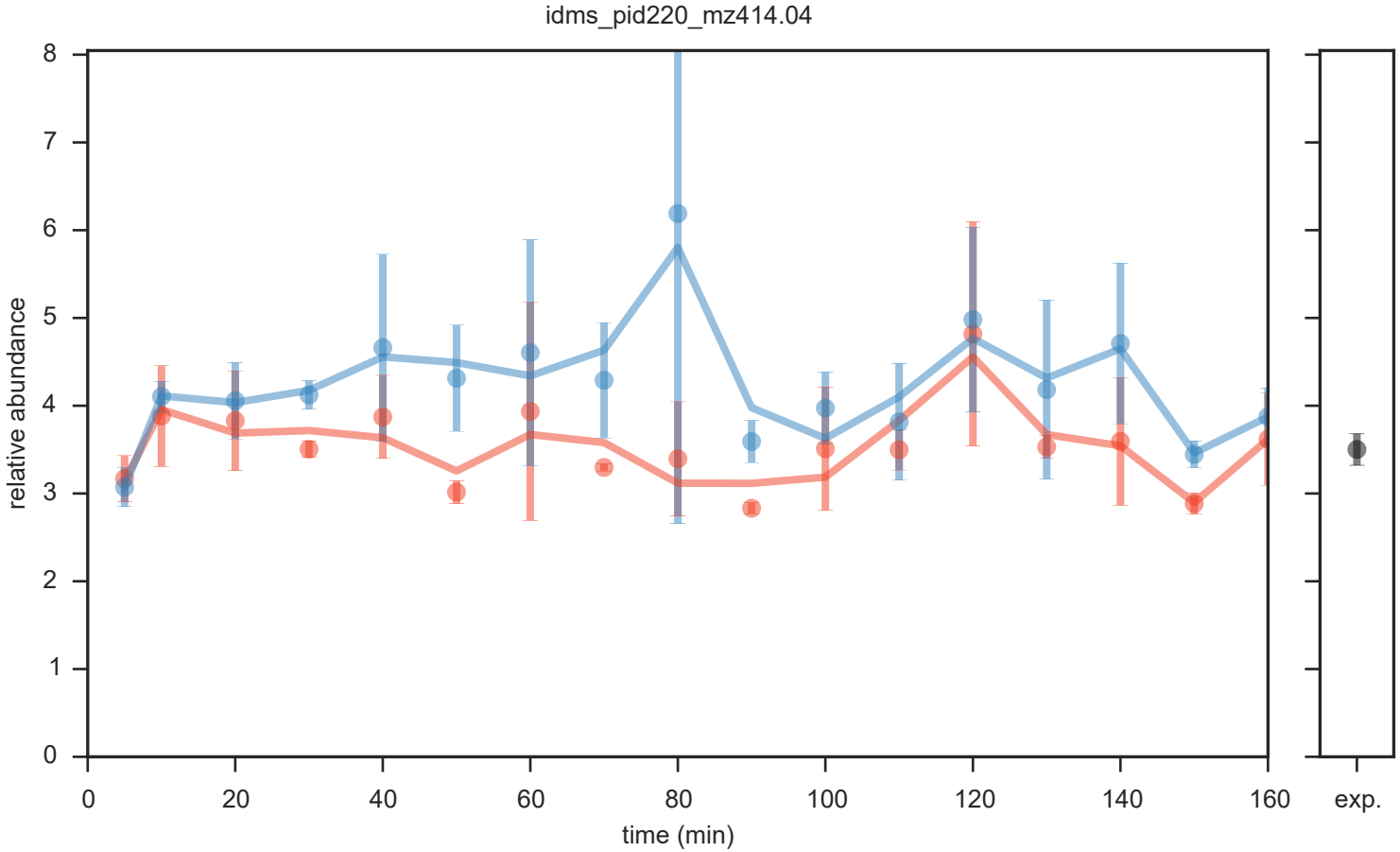

idms_pid191_mz417.32
relative abundance
0
1
2
3
4
5
6
7
0
20
40
60
80
100
120
140
160
time (min)
exp.

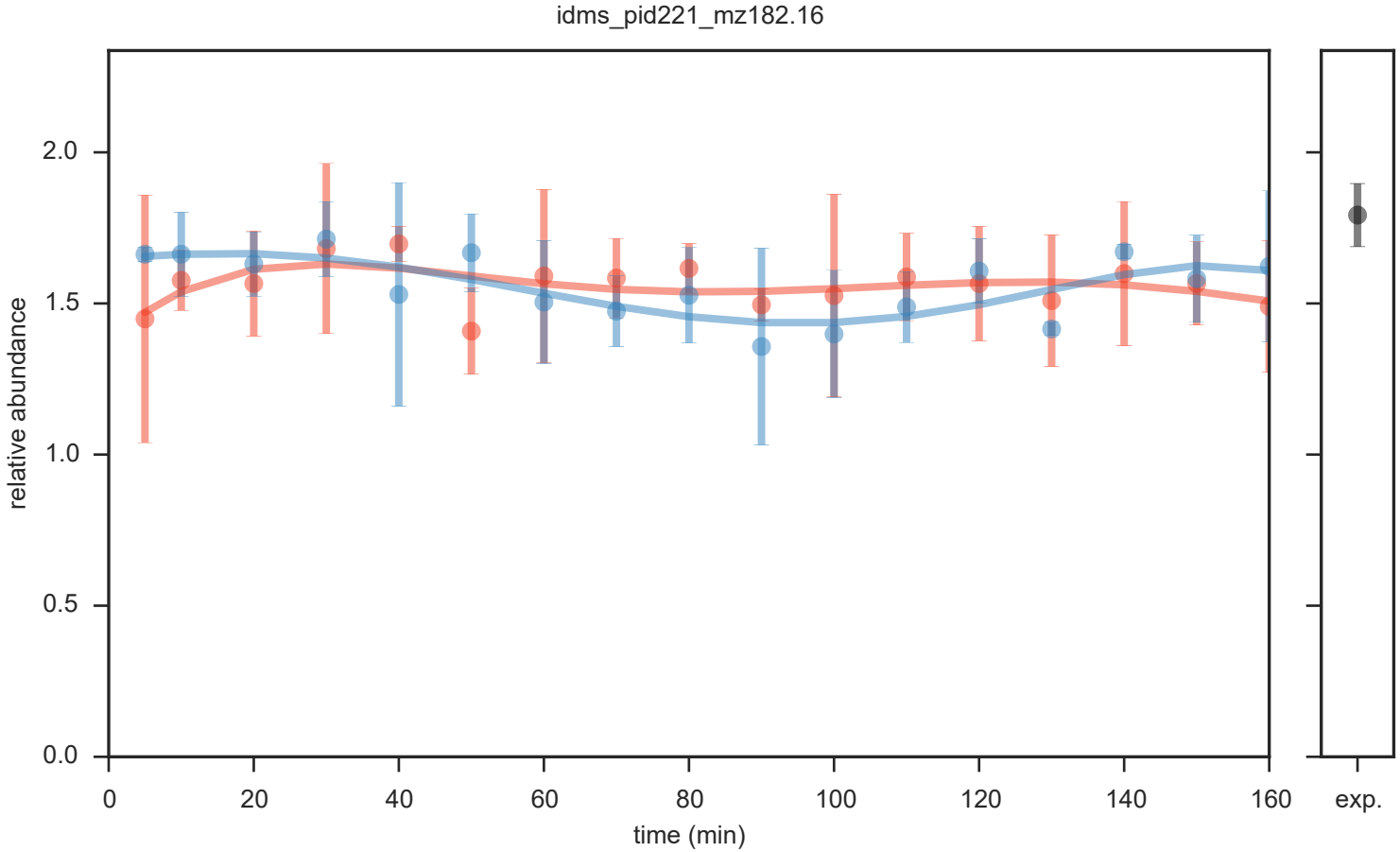

idms_pid194_mz132.10
relative abundance
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.

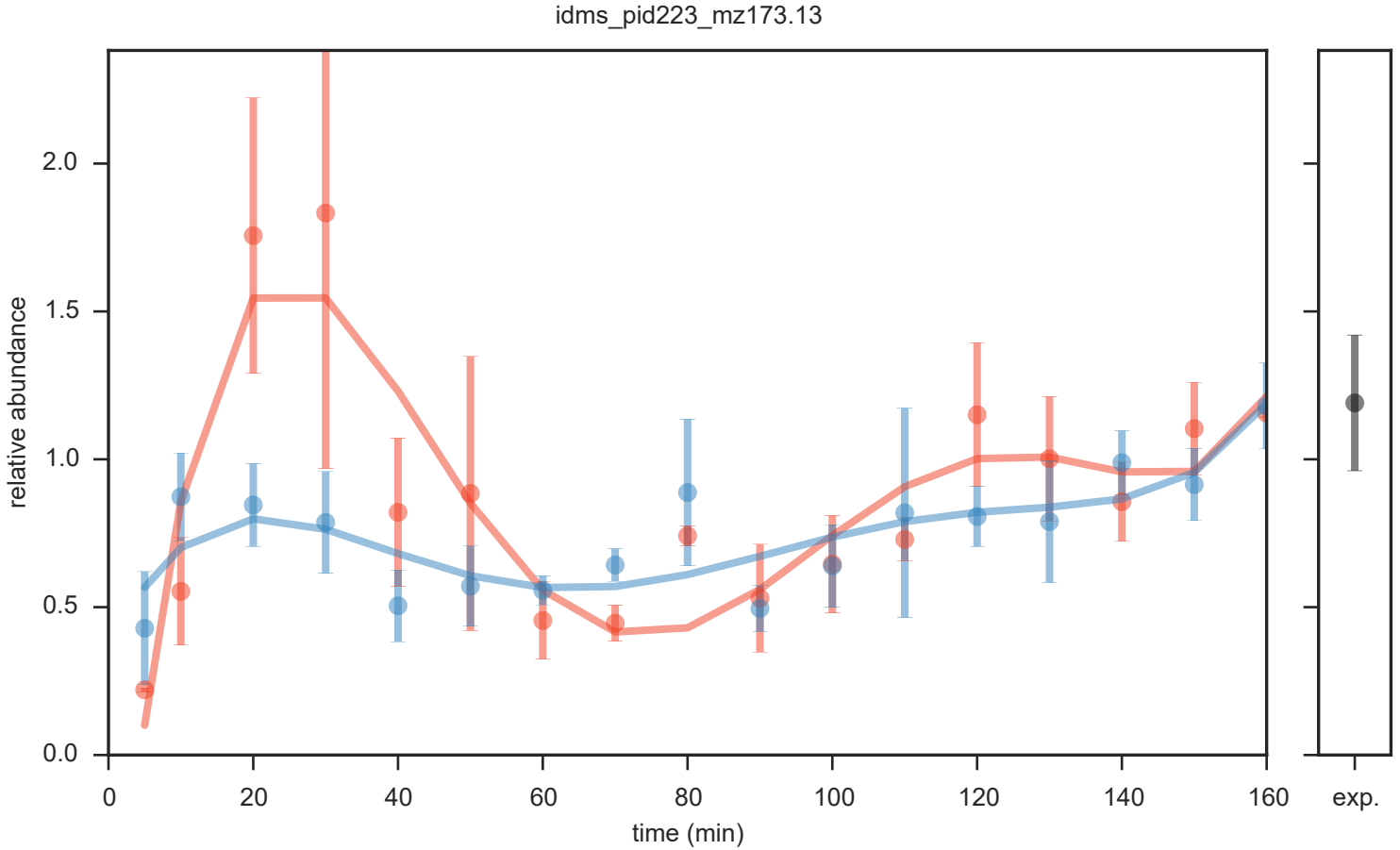

idms_pid203_mz232.20
relative abundance
0
2
4
6
8
10
12
0
20
40
60
80
100
120
140
160
time (min)
exp.

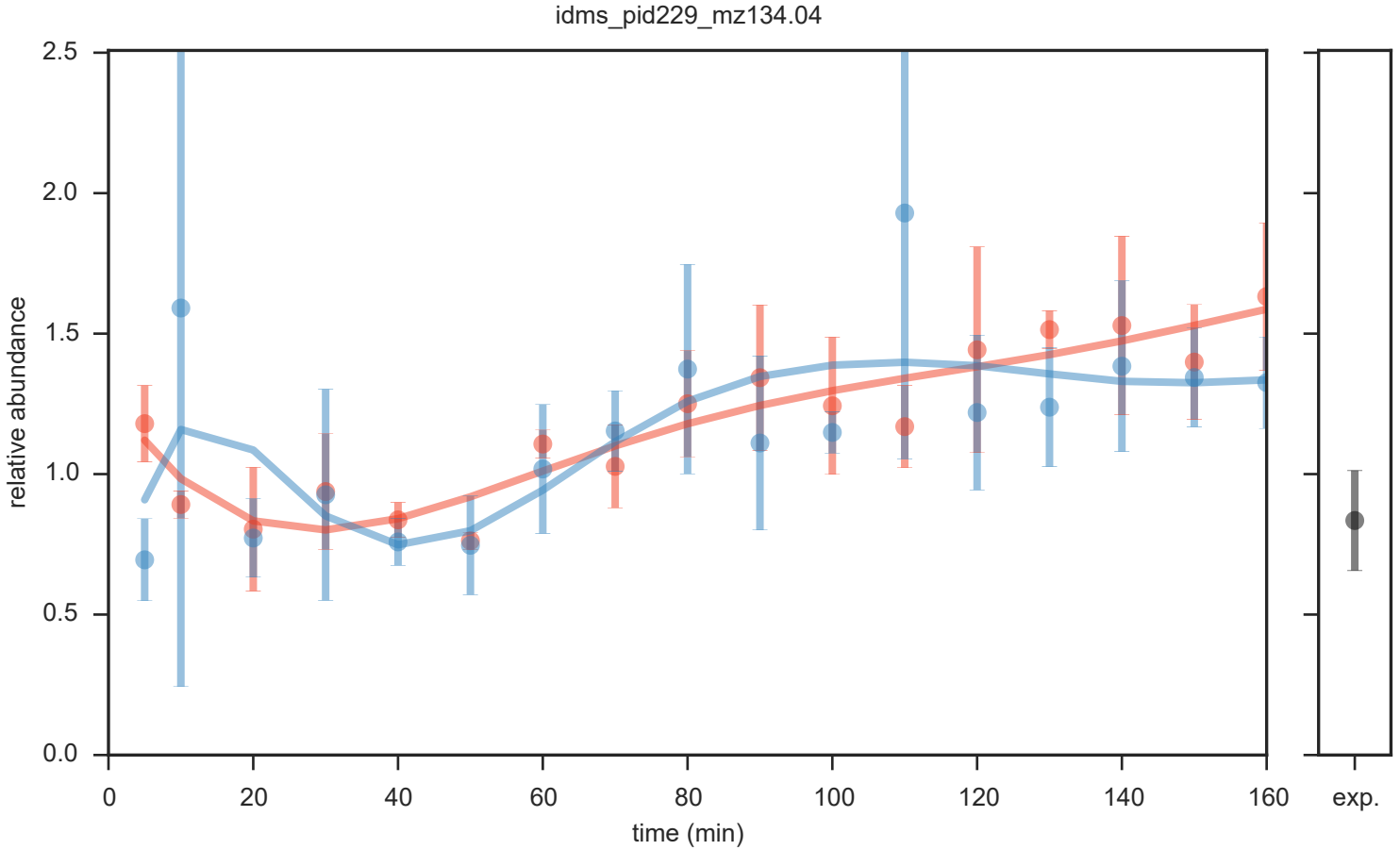

idms_pid210_mz133.09
relative abundance
time (min)
exp.
0
5
10
15
20
25
30
0
20
40
60
80
100
120
140
160

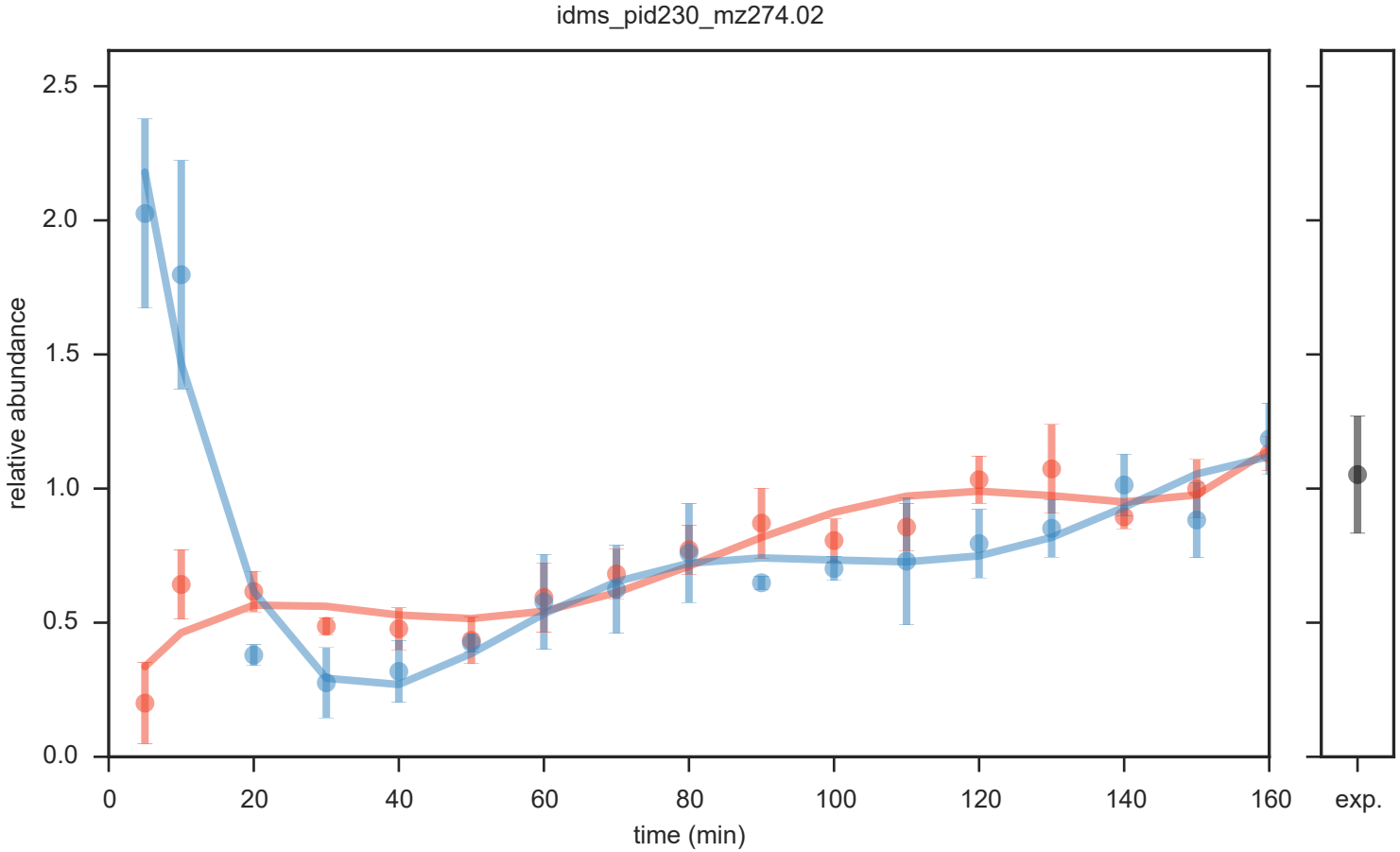

idms_pid217_mz300.09
relative abundance
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.

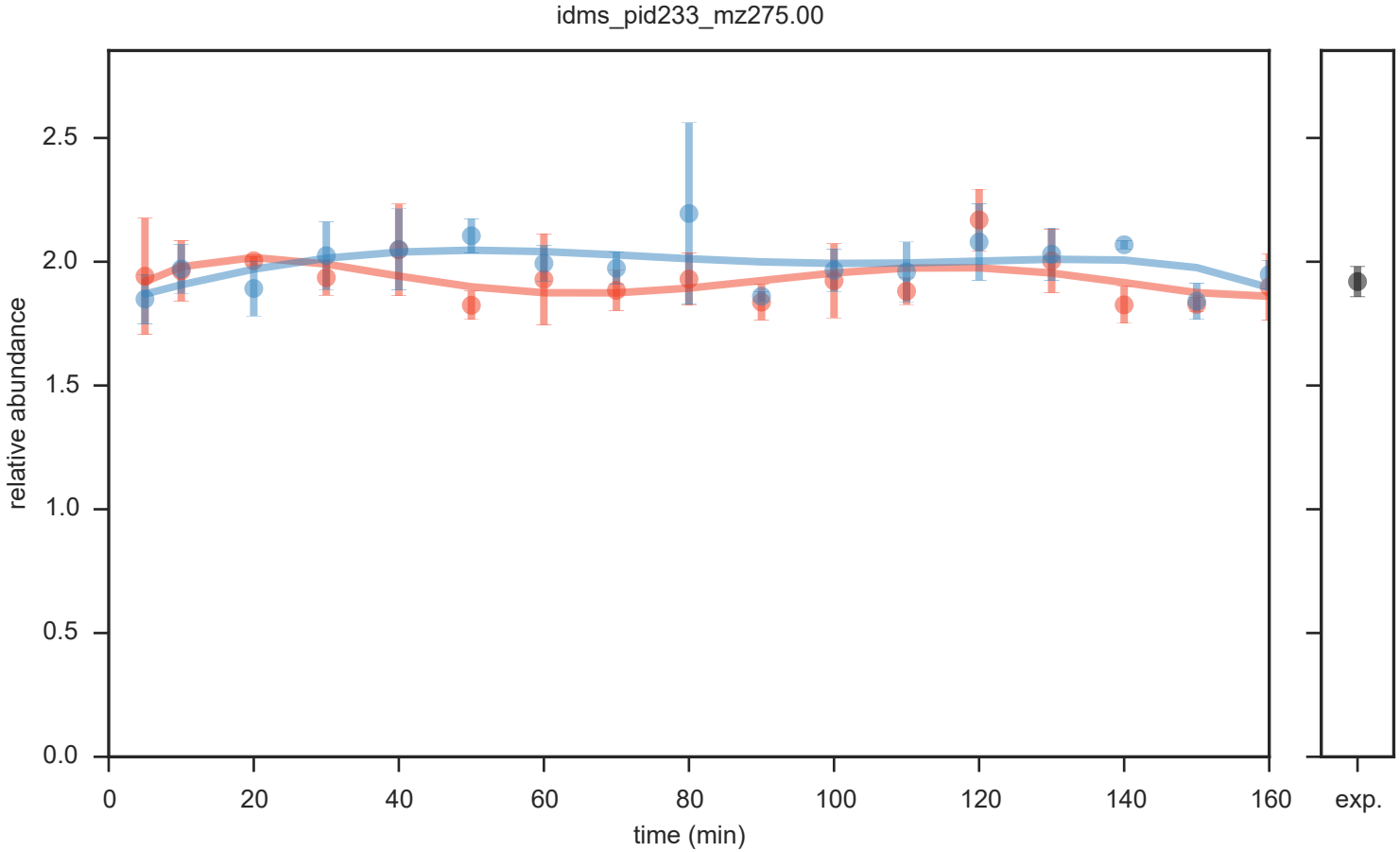

idms_pid220_mz414.04
relative abundance
time (min)
exp.
0
1
2
3
4
5
6
7
8
0
20
40
60
80
100
120
140
160

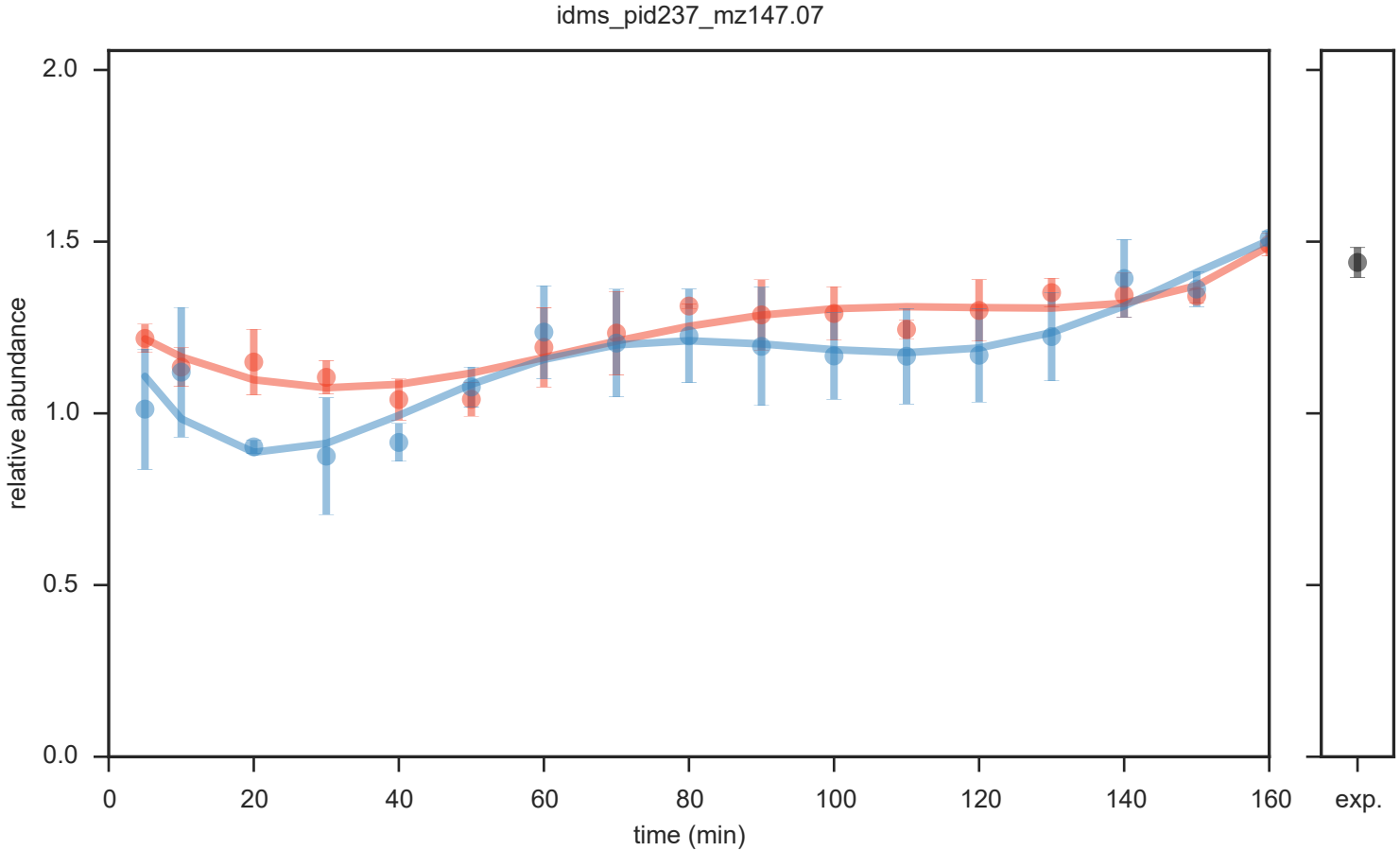

idms_pid221_mz182.16
relative abundance
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.

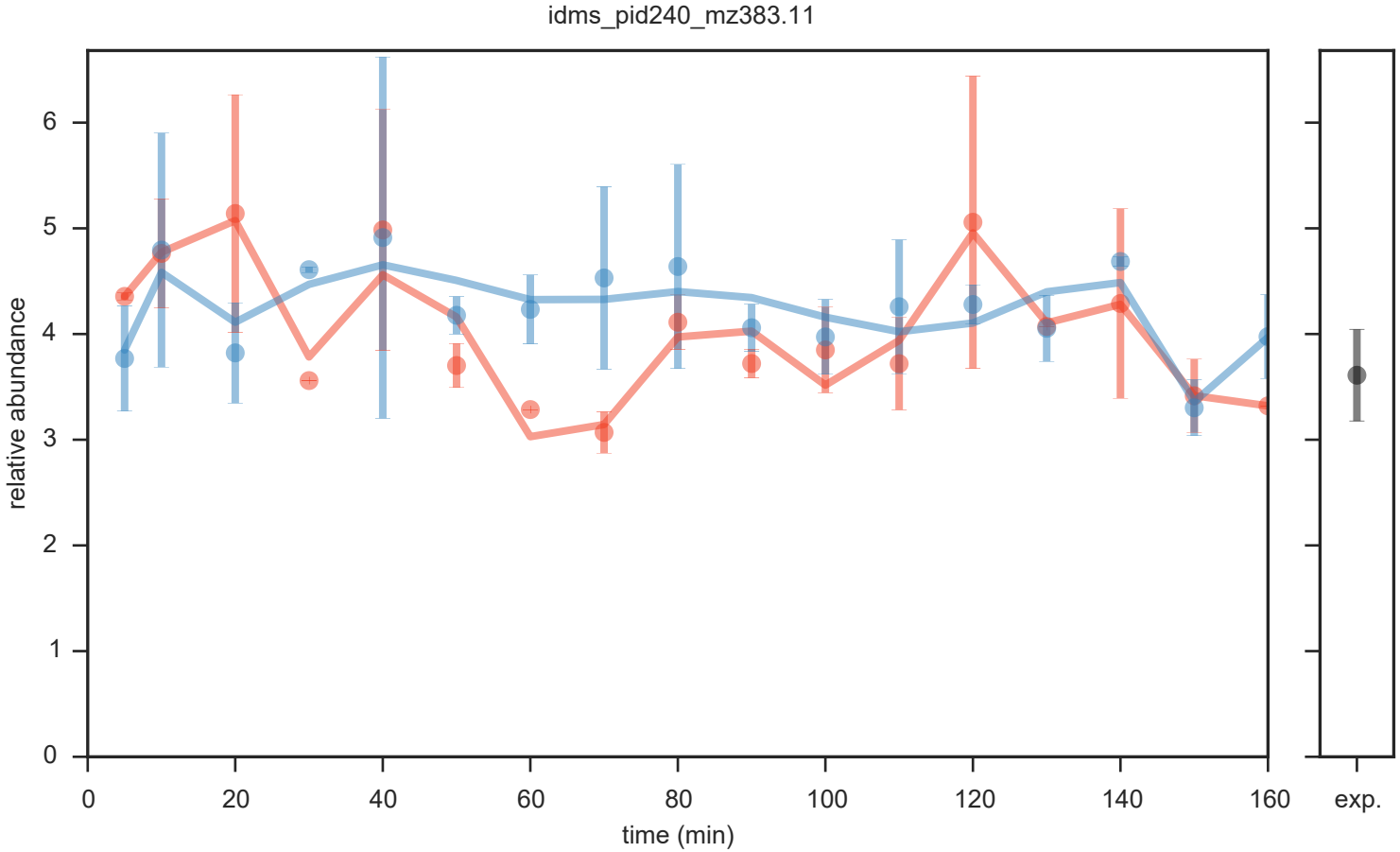

idms_pid223_mz173.13
relative abundance
0.0
0.5
1.0
1.5
2.0
0
20
40
60
80
100
120
140
160
time (min)
exp.

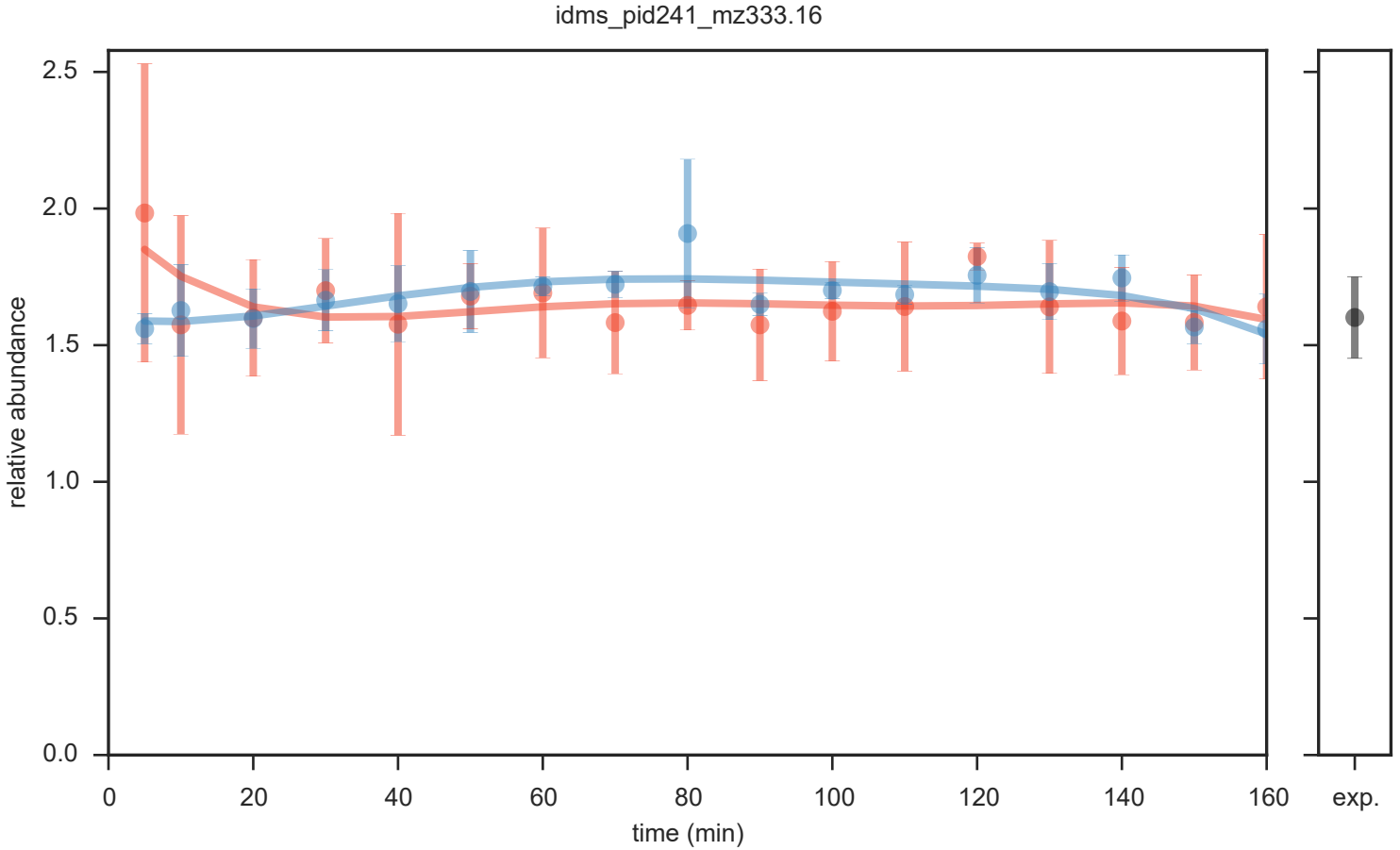

idms_pid229_mz134.04
relative abundance
2.5
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.

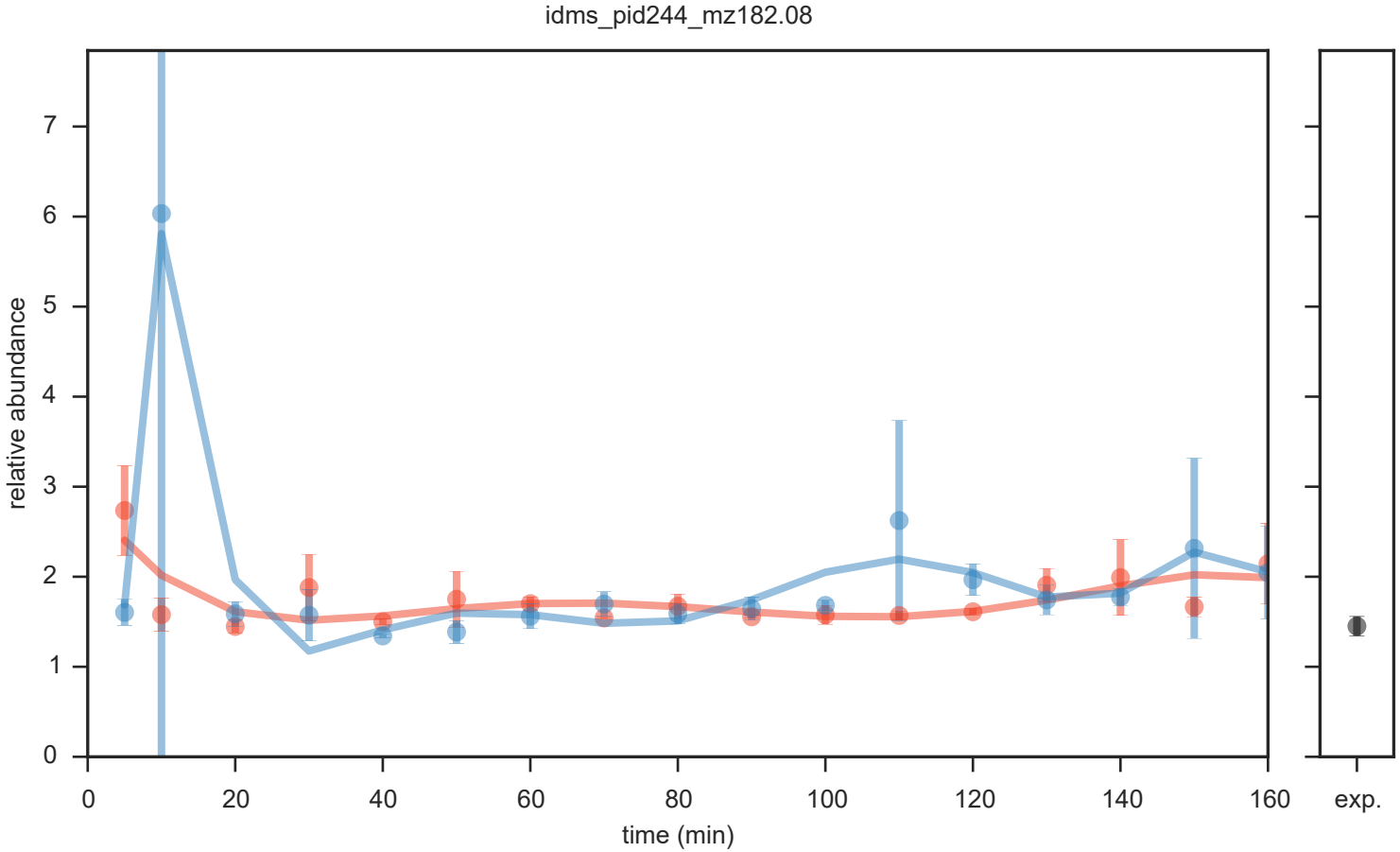

idms_pid230_mz274.02
relative abundance
2.5
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.

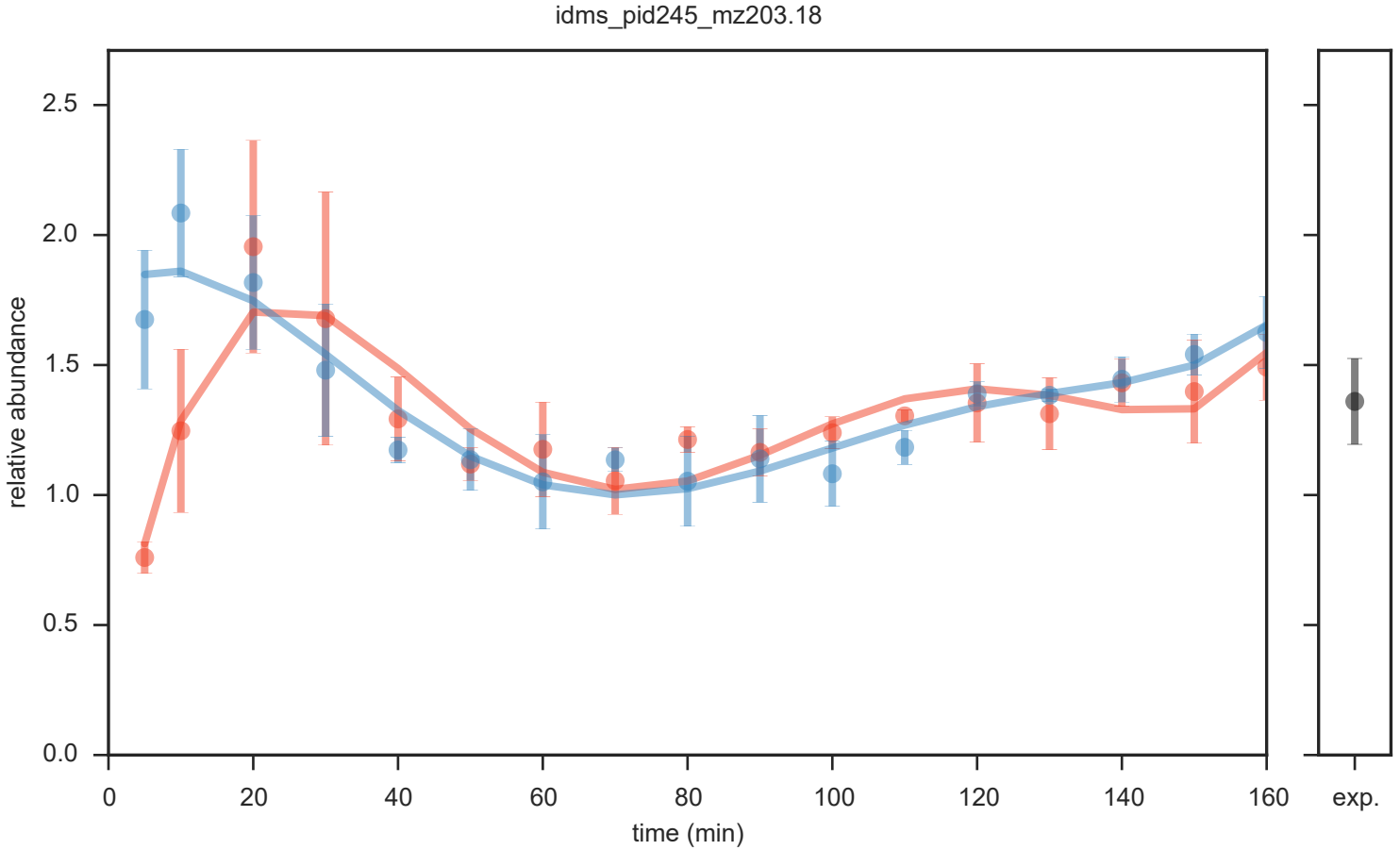

idms_pid233_mz275.00
relative abundance
2.5
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.

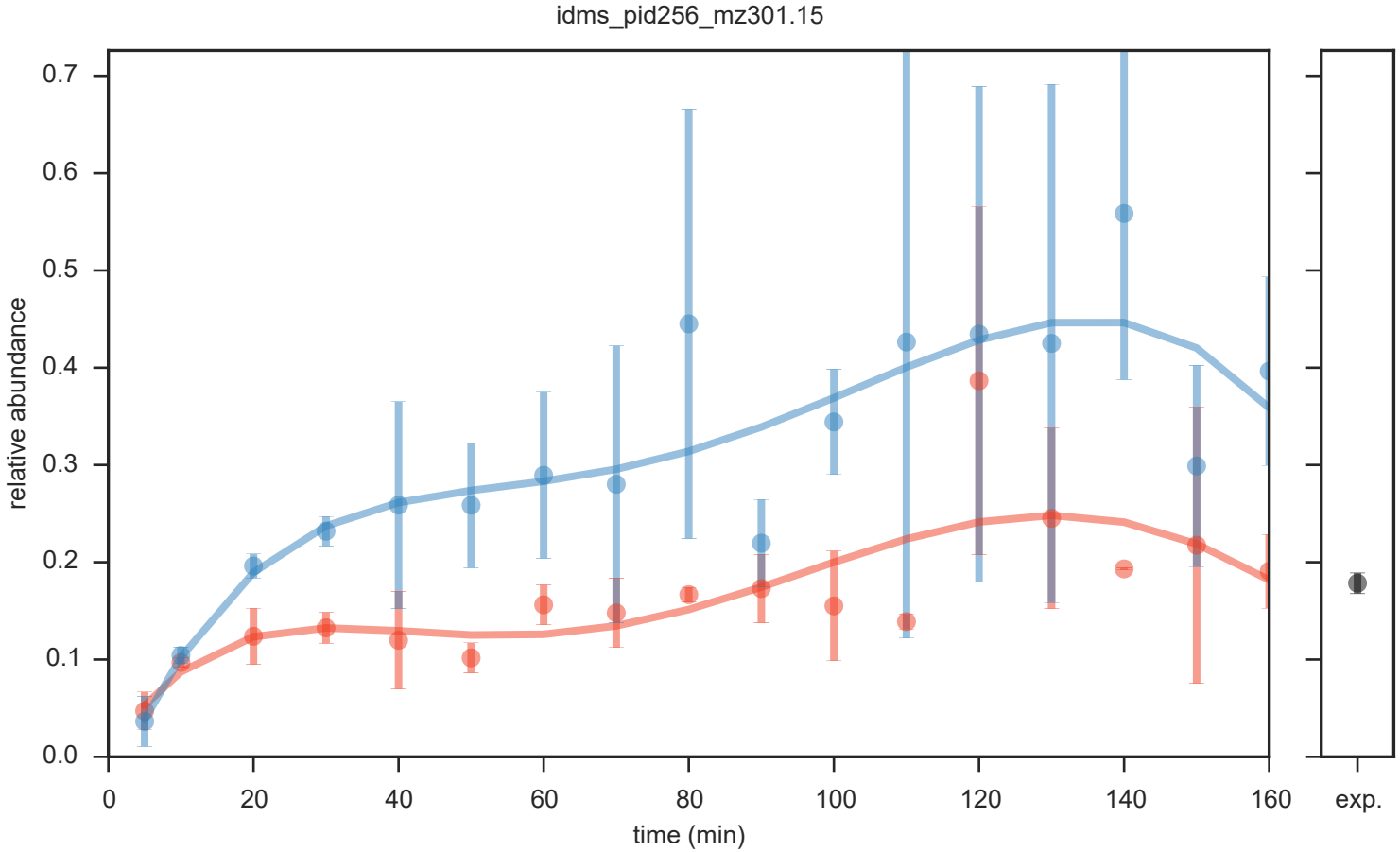

idms_pid237_mz147.07
relative abundance
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.

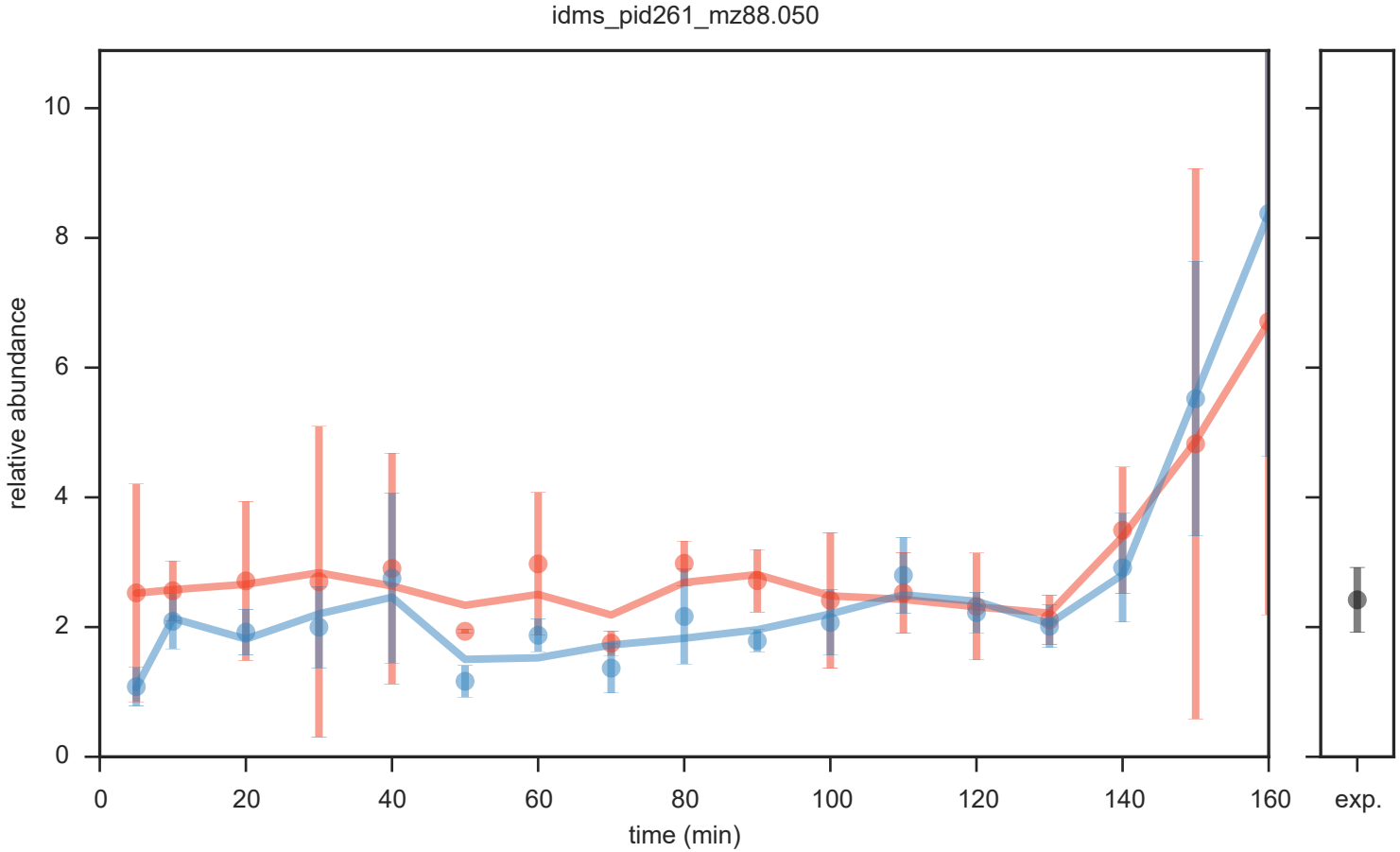

idms_pid240_mz383.11
relative abundance
0
1
2
3
4
5
6
0
20
40
60
80
100
120
140
160
time (min)
exp.

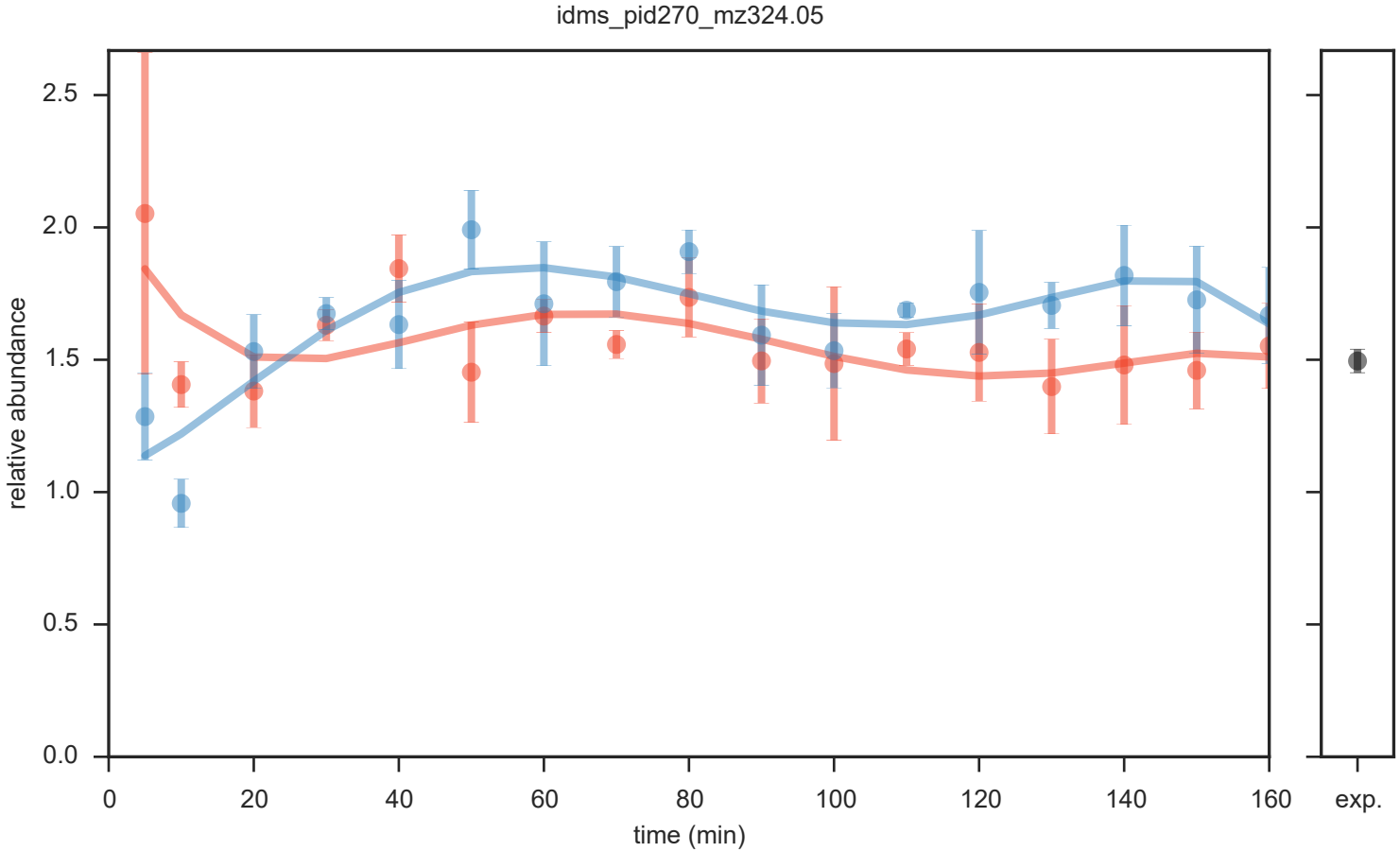

idms_pid241_mz333.16
relative abundance
2.5
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.

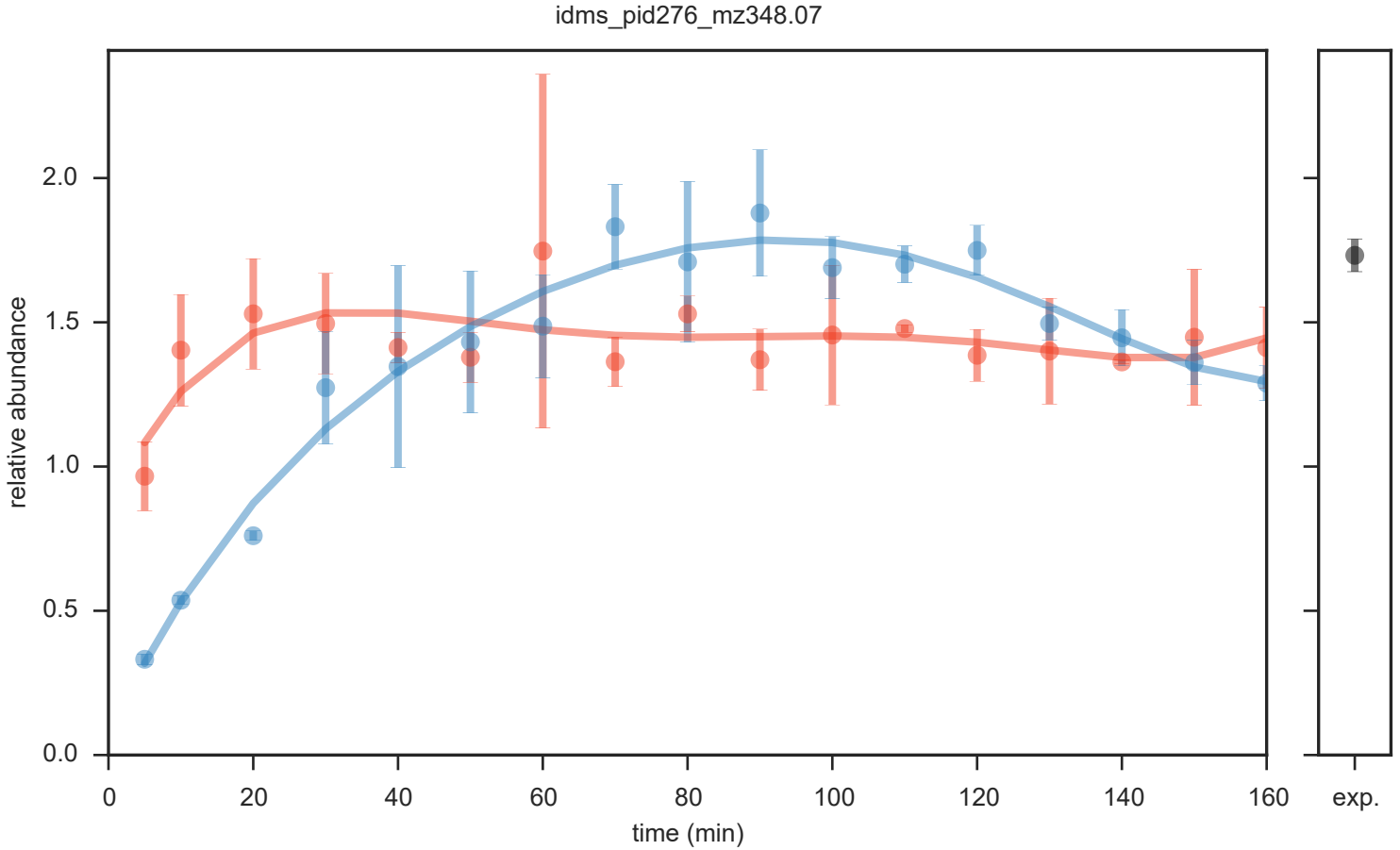

idms_pid244_mz182.08
relative abundance
0
1
2
3
4
5
6
7
0
20
40
60
80
100
120
140
160
time (min)
exp.

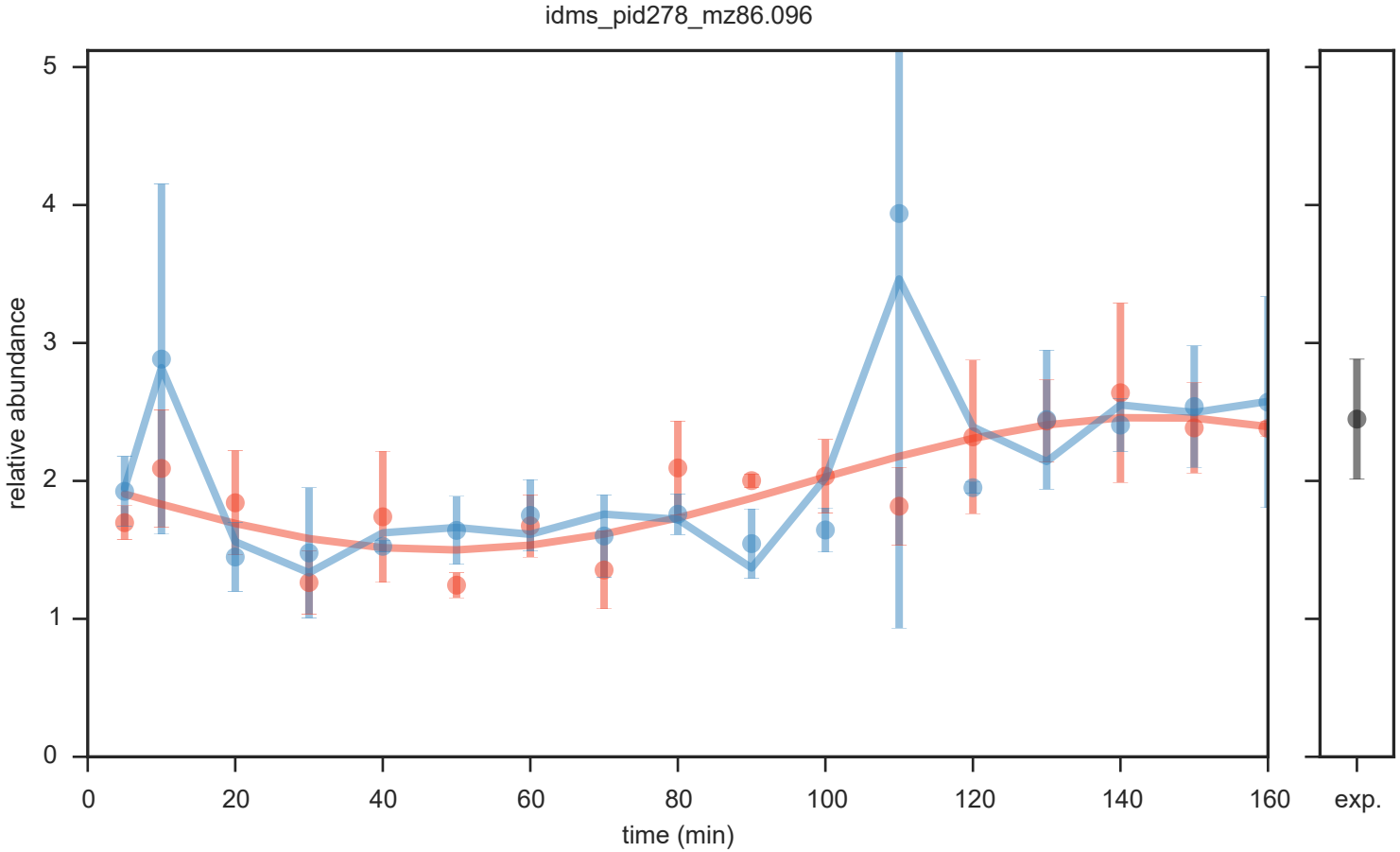

idms_pid245_mz203.18
relative abundance
0.0
0.5
1.0
1.5
2.0
2.5
0
20
40
60
80
100
120
140
160
time (min)
exp.

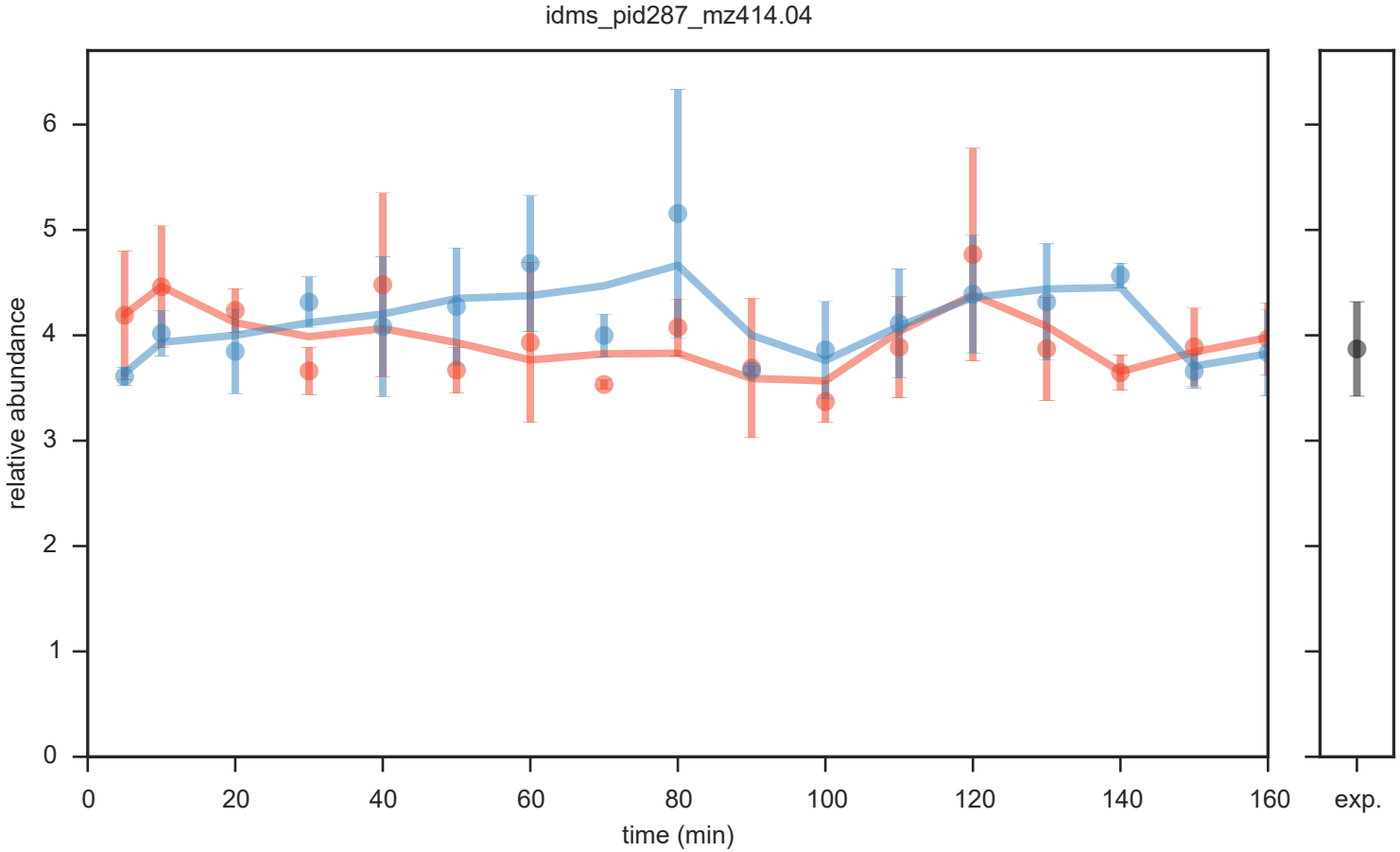

idms_pid256_mz301.15
relative abundance
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0
20
40
60
80
100
120
140
160
time (min)
exp.

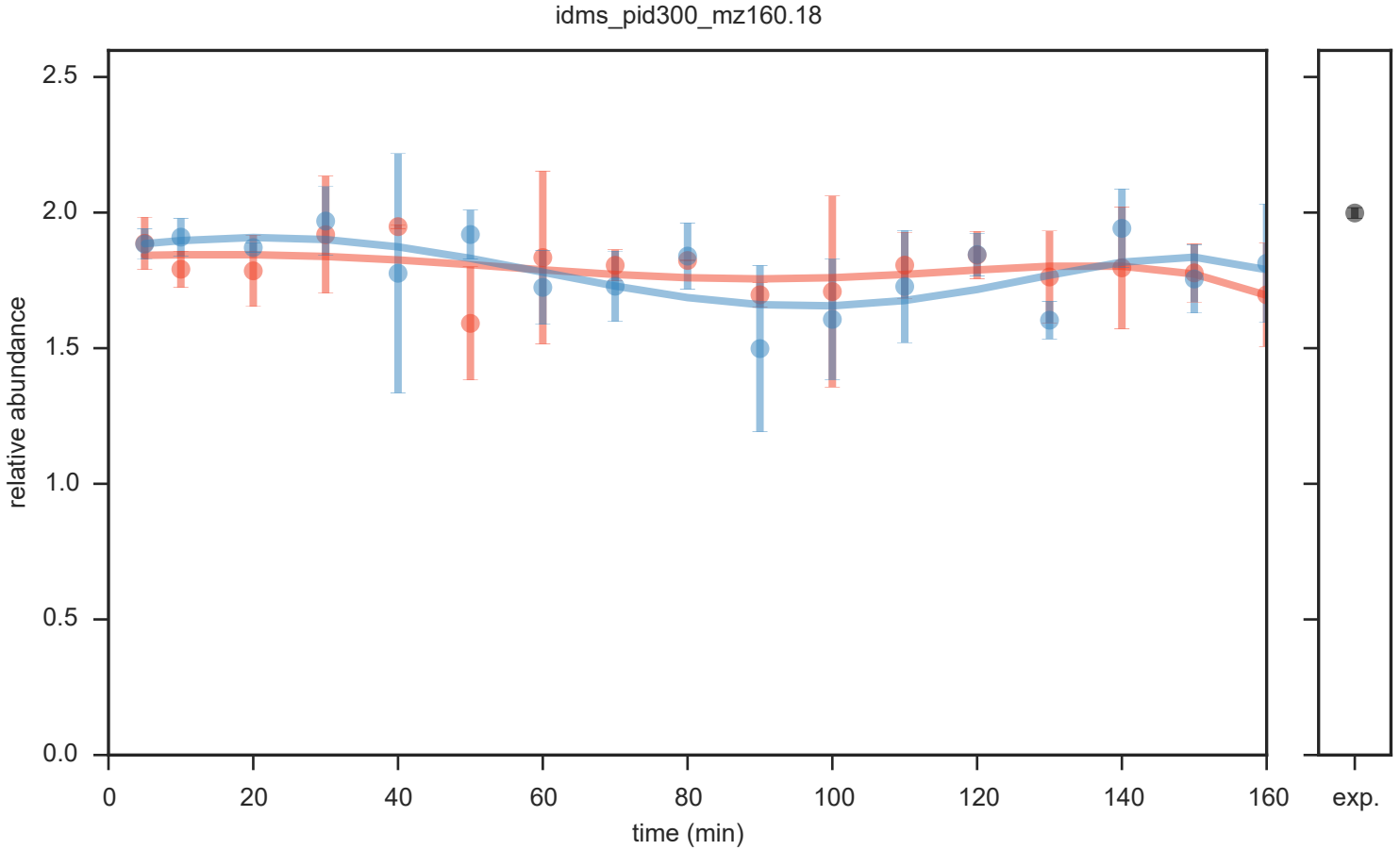

idms_pid261_mz88.050
relative abundance
0
2
4
6
8
10
0
20
40
60
80
100
120
140
160
time (min)
exp.

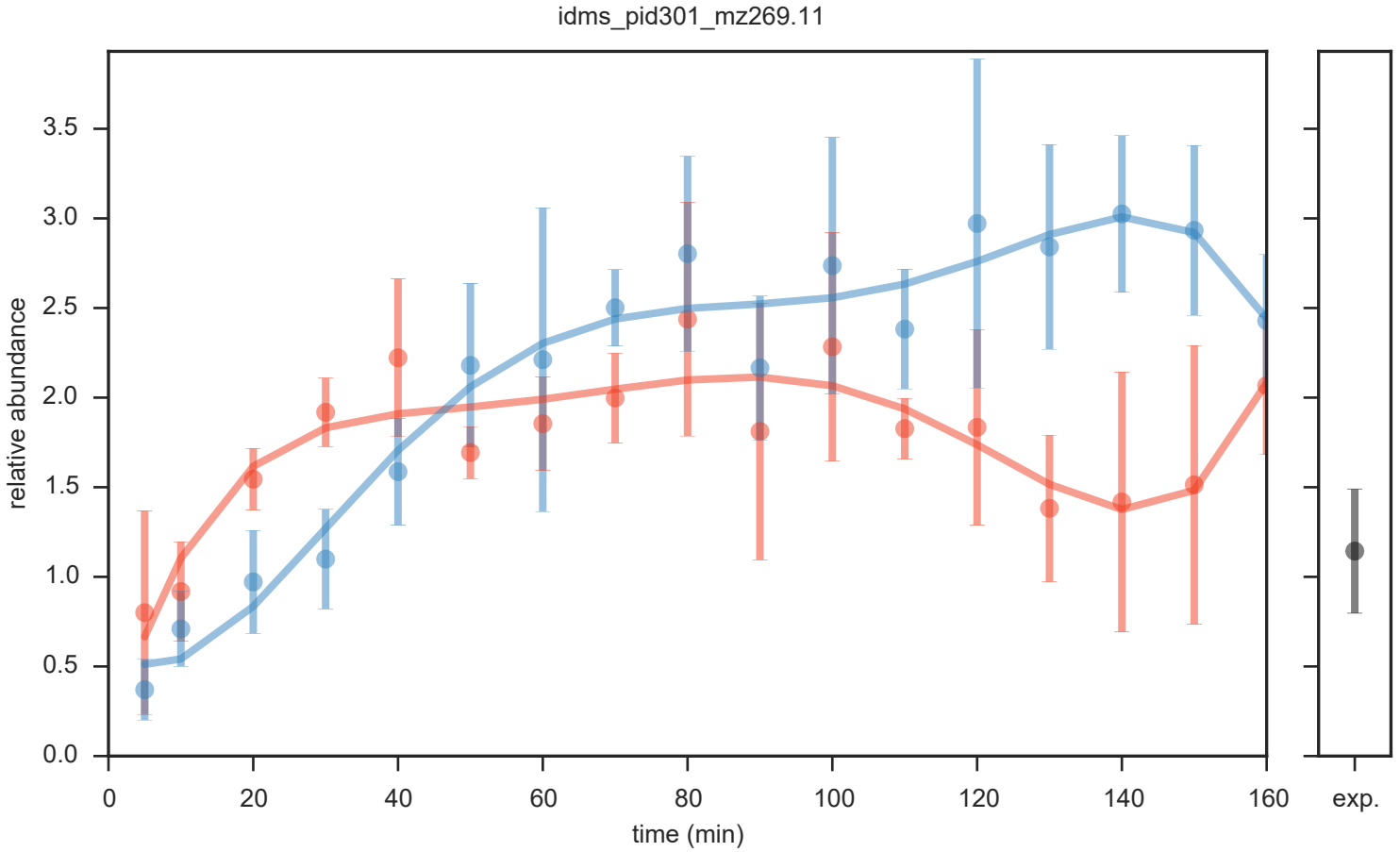

idms_pid270_mz324.05
relative abundance
2.5
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.

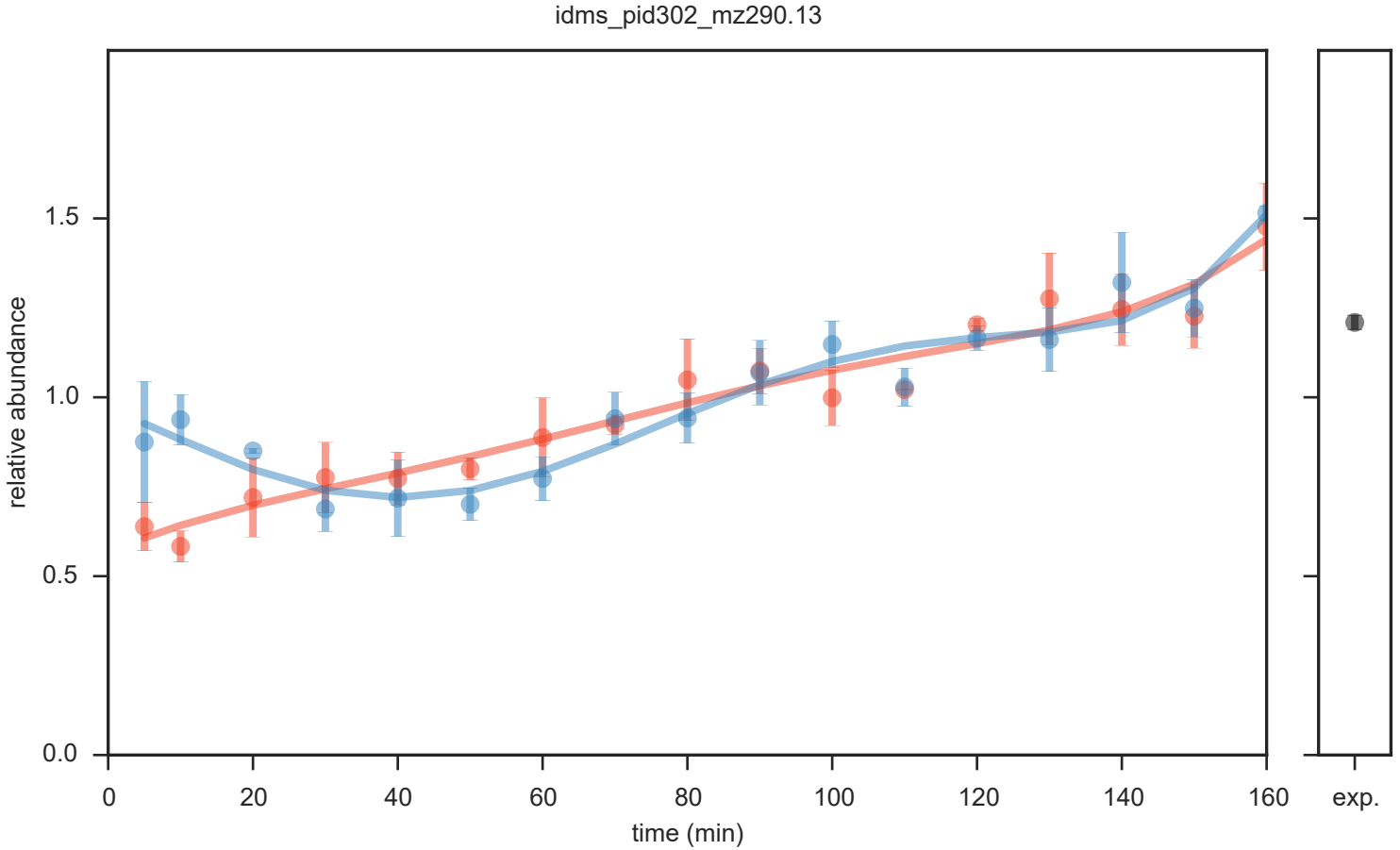

idms_pid276_mz348.07
relative abundance
0.0
0.5
1.0
1.5
2.0
0
20
40
60
80
100
120
140
160
time (min)
exp.

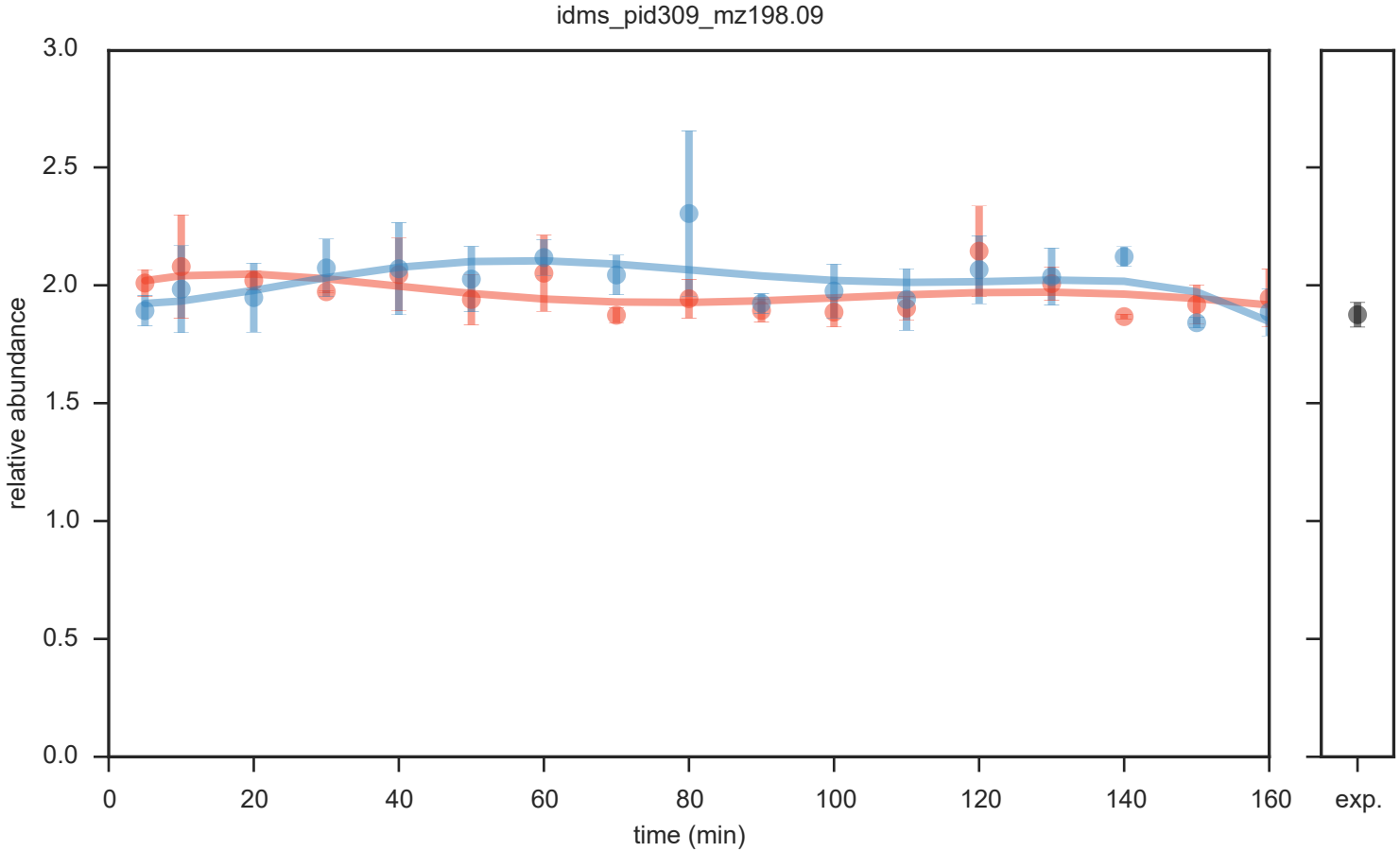

idms_pid278_mz86.096
relative abundance
time (min)
exp.
0
1
2
3
4
5
0
20
40
60
80
100
120
140
160

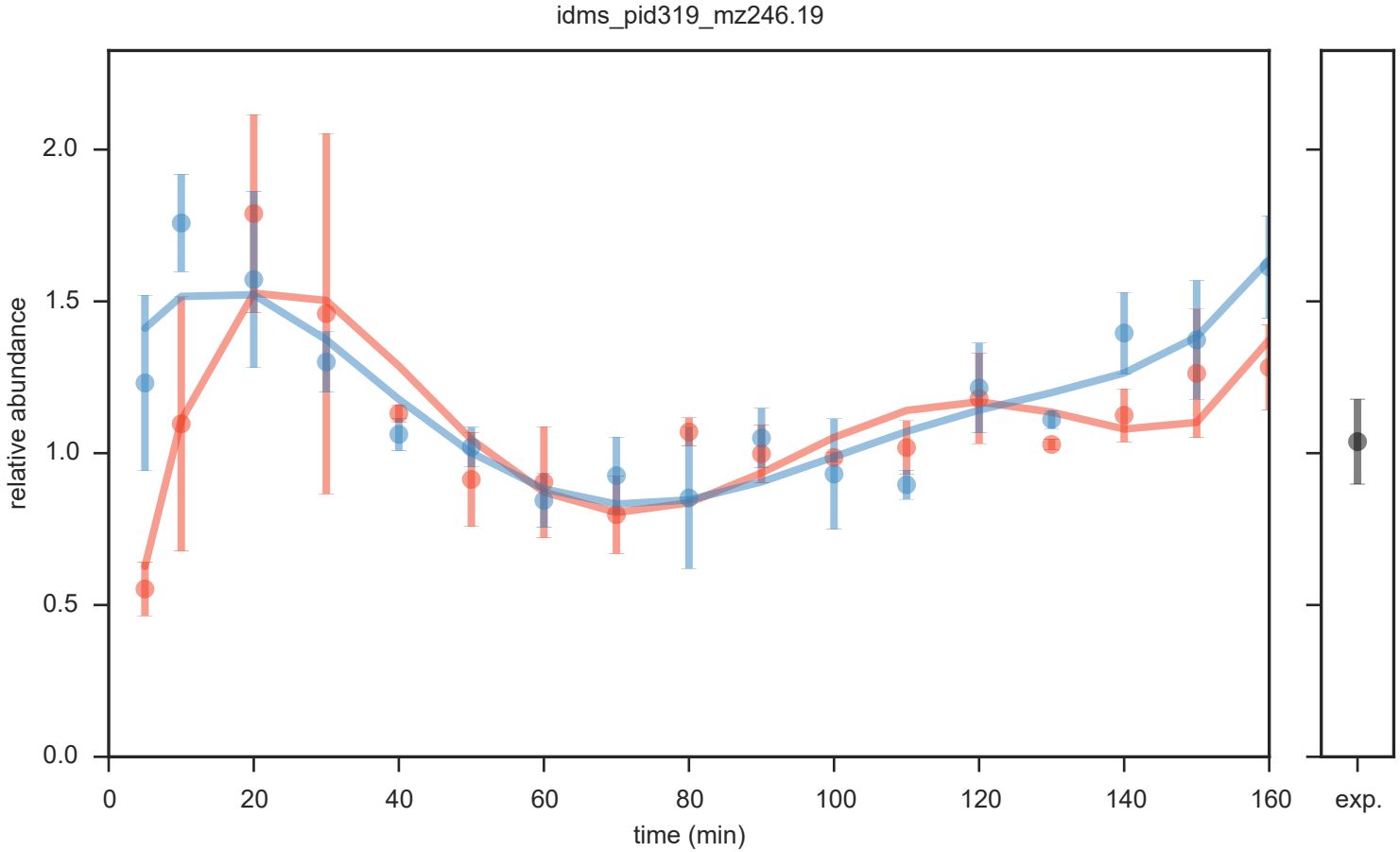

idms_pid287_mz414.04
relative abundance
0
1
2
3
4
5
6
0
20
40
60
80
100
120
140
160
time (min)
exp.

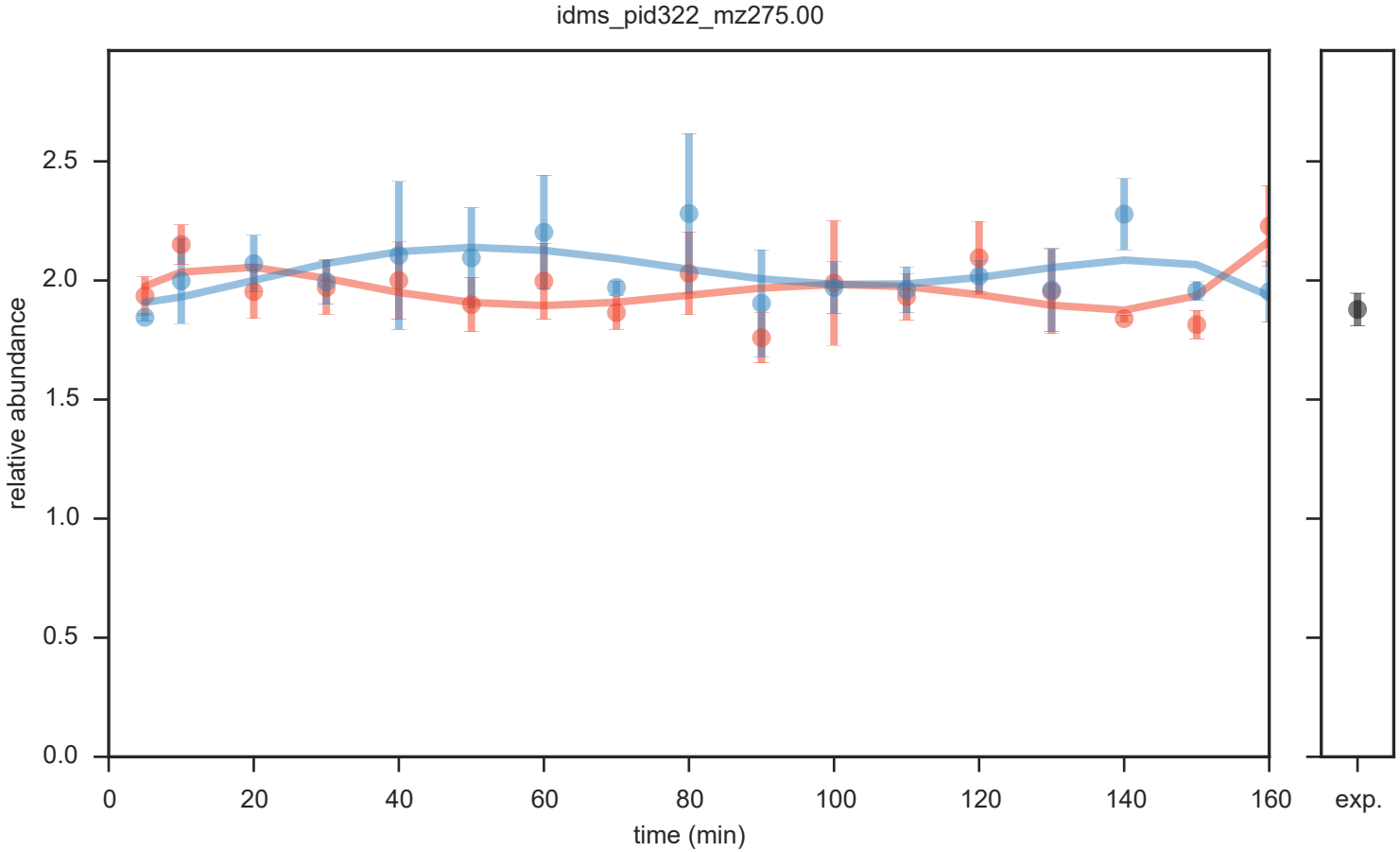

idms_pid300_mz160.18
relative abundance
2.5
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.

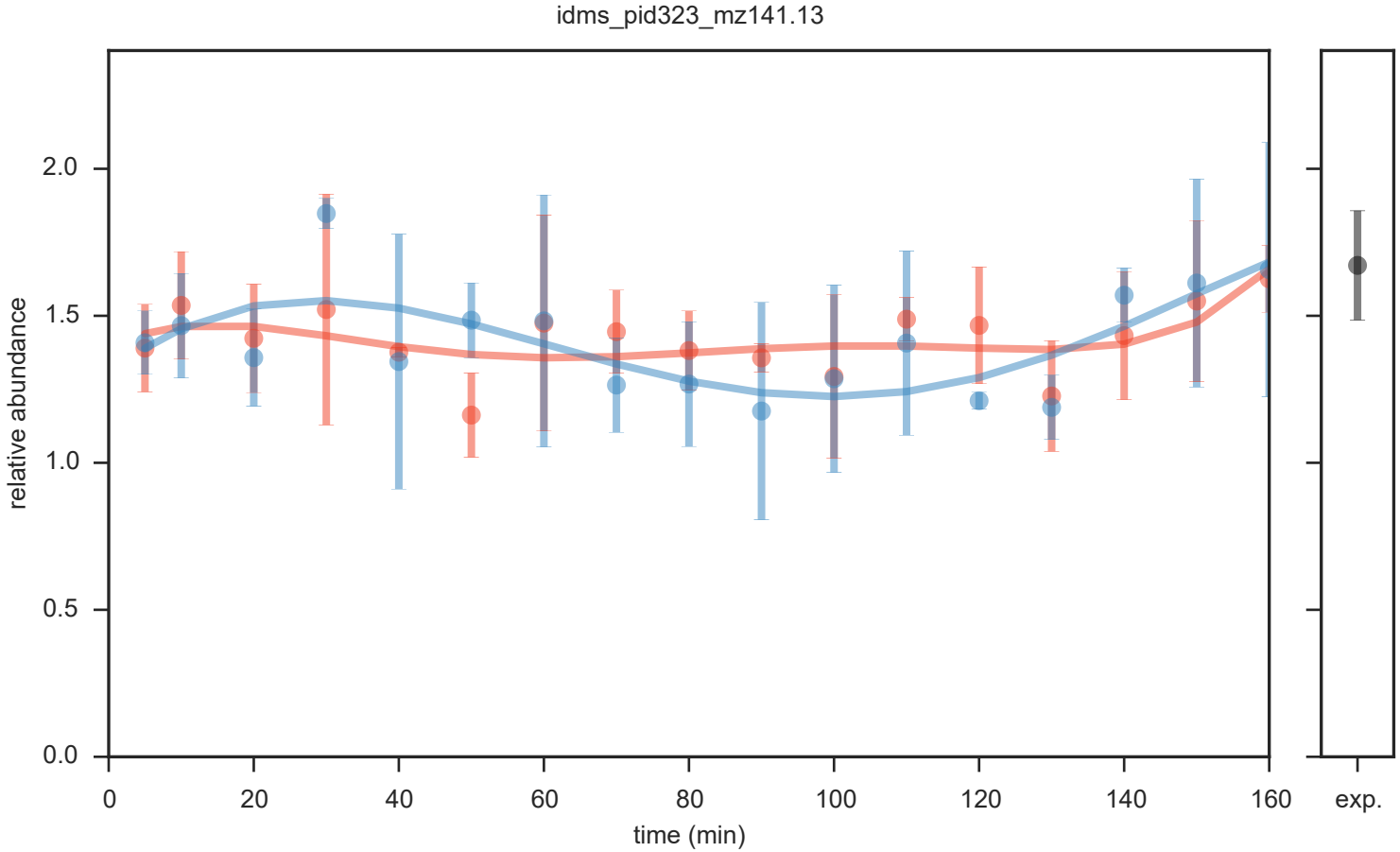

idms_pid301_mz269.11
relative abundance
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
0
20
40
60
80
100
120
140
160
time (min)
exp.

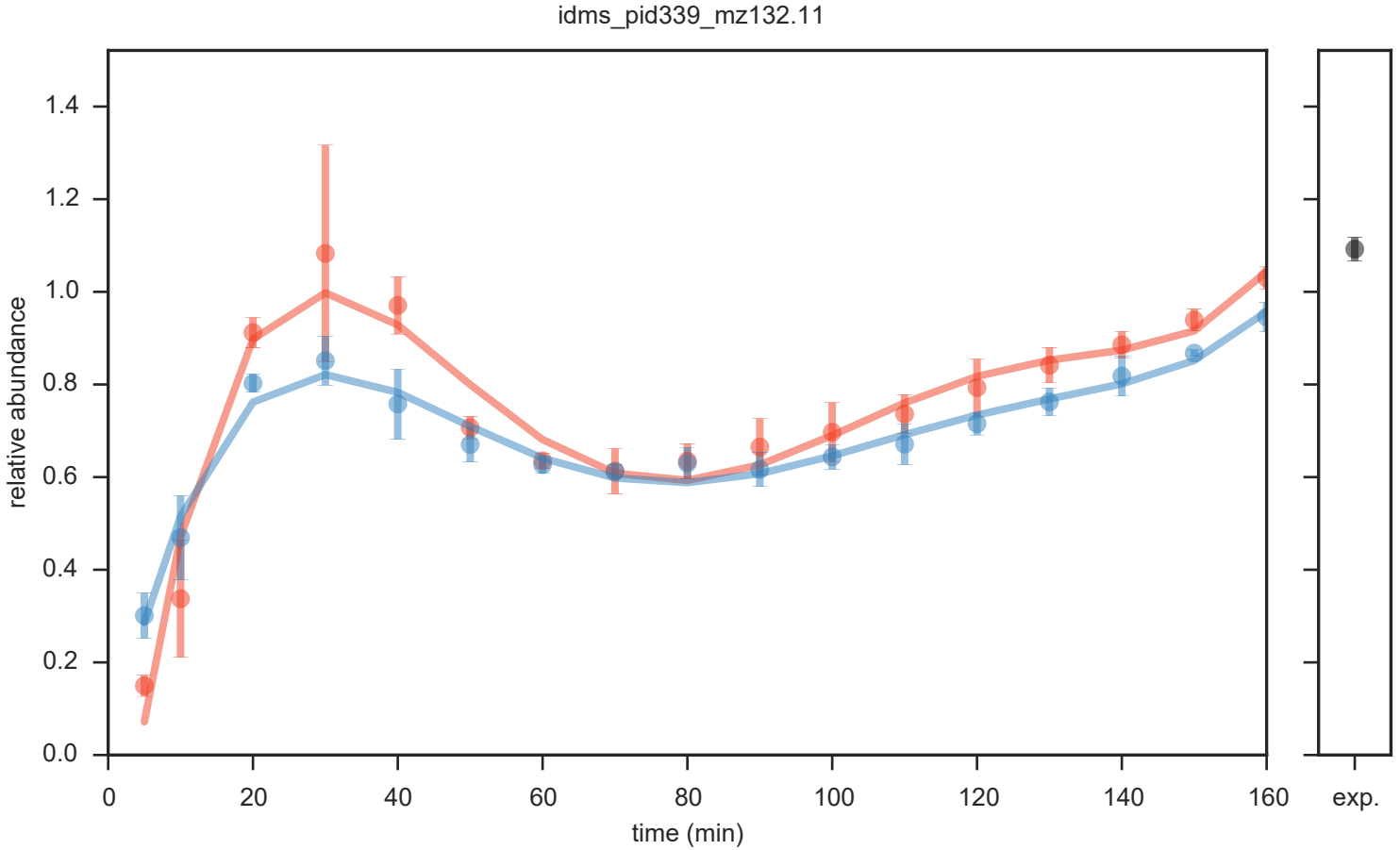

idms_pid302_mz290.13
relative abundance
0.0
0.5
1.0
1.5
0
20
40
60
80
100
120
140
160
time (min)
exp.

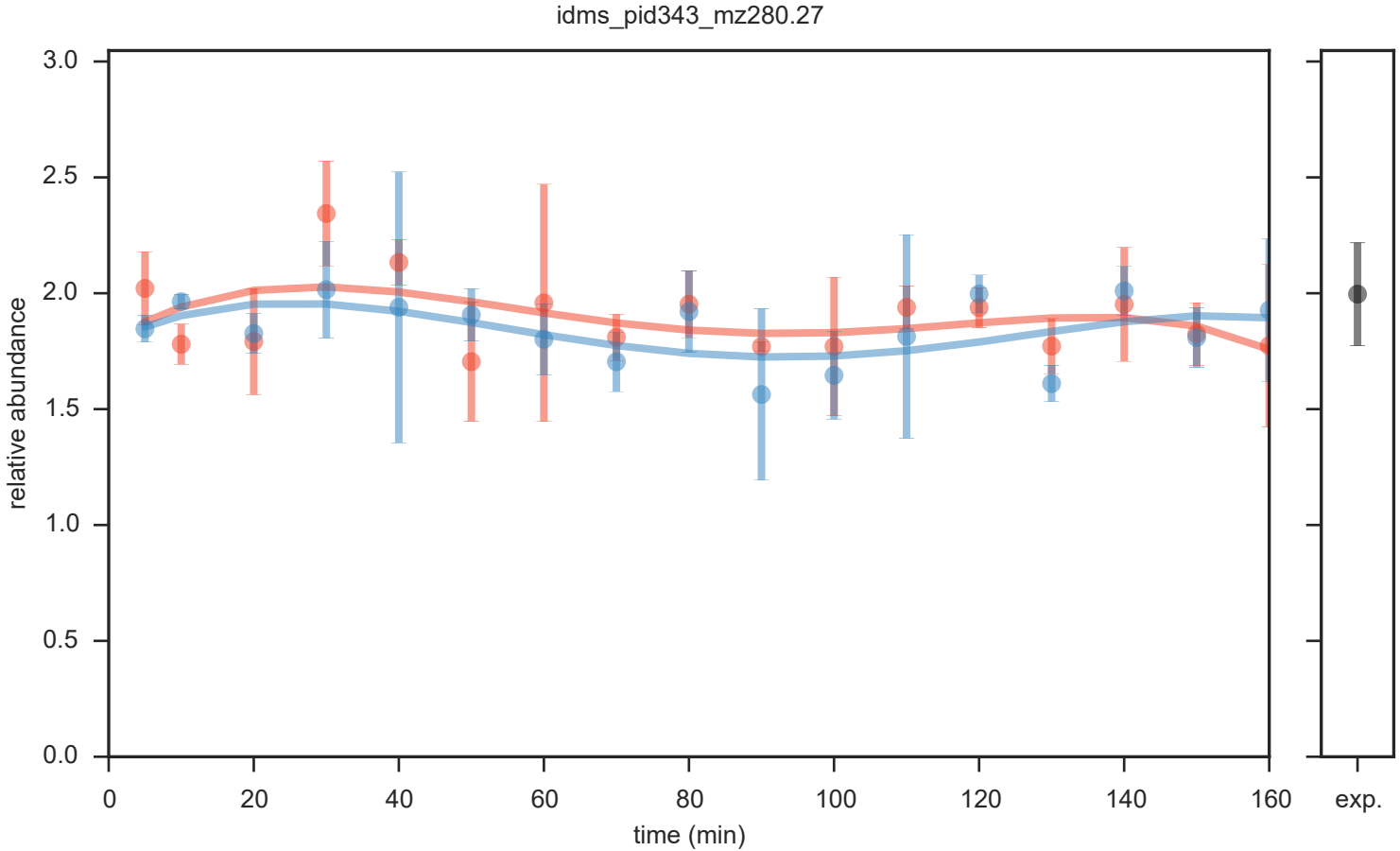

idms_pid309_mz198.09
relative abundance
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.

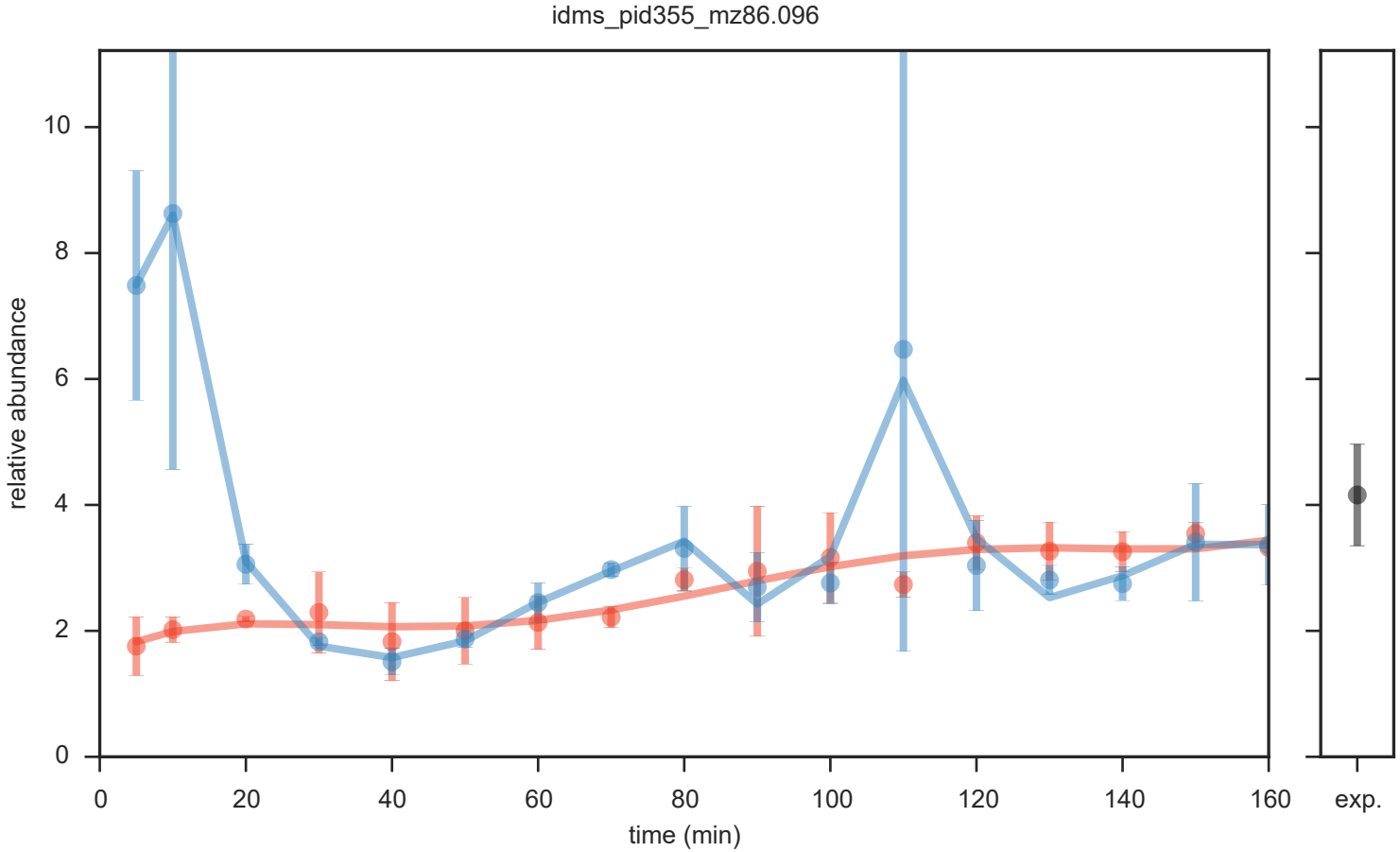

idms_pid319_mz246.19
relative abundance
0.0
0.5
1.0
1.5
2.0
0
20
40
60
80
100
120
140
160
time (min)
exp.

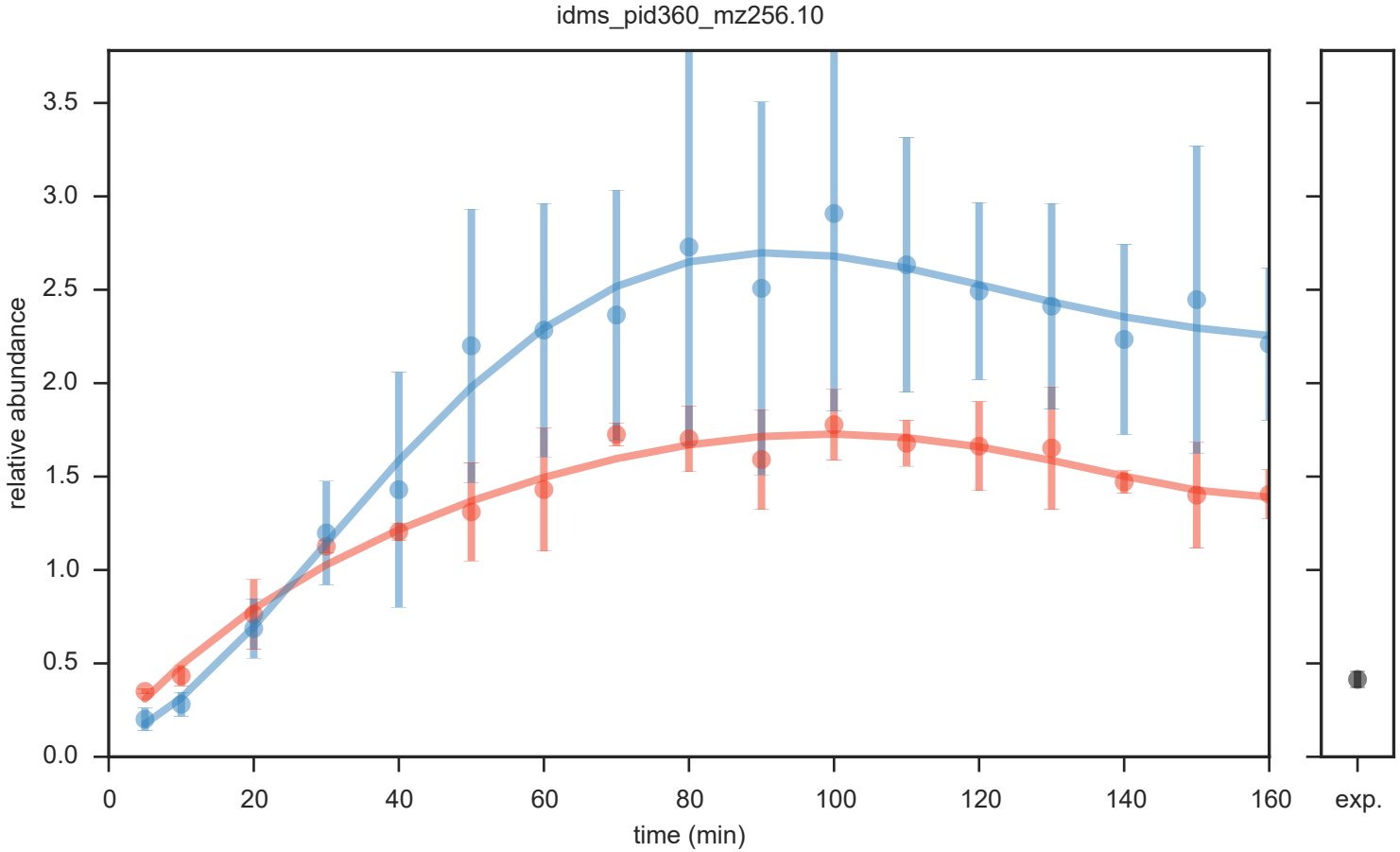

idms_pid322_mz275.00
relative abundance
0.0
0.5
1.0
1.5
2.0
2.5
0
20
40
60
80
100
120
140
160
time (min)
exp.

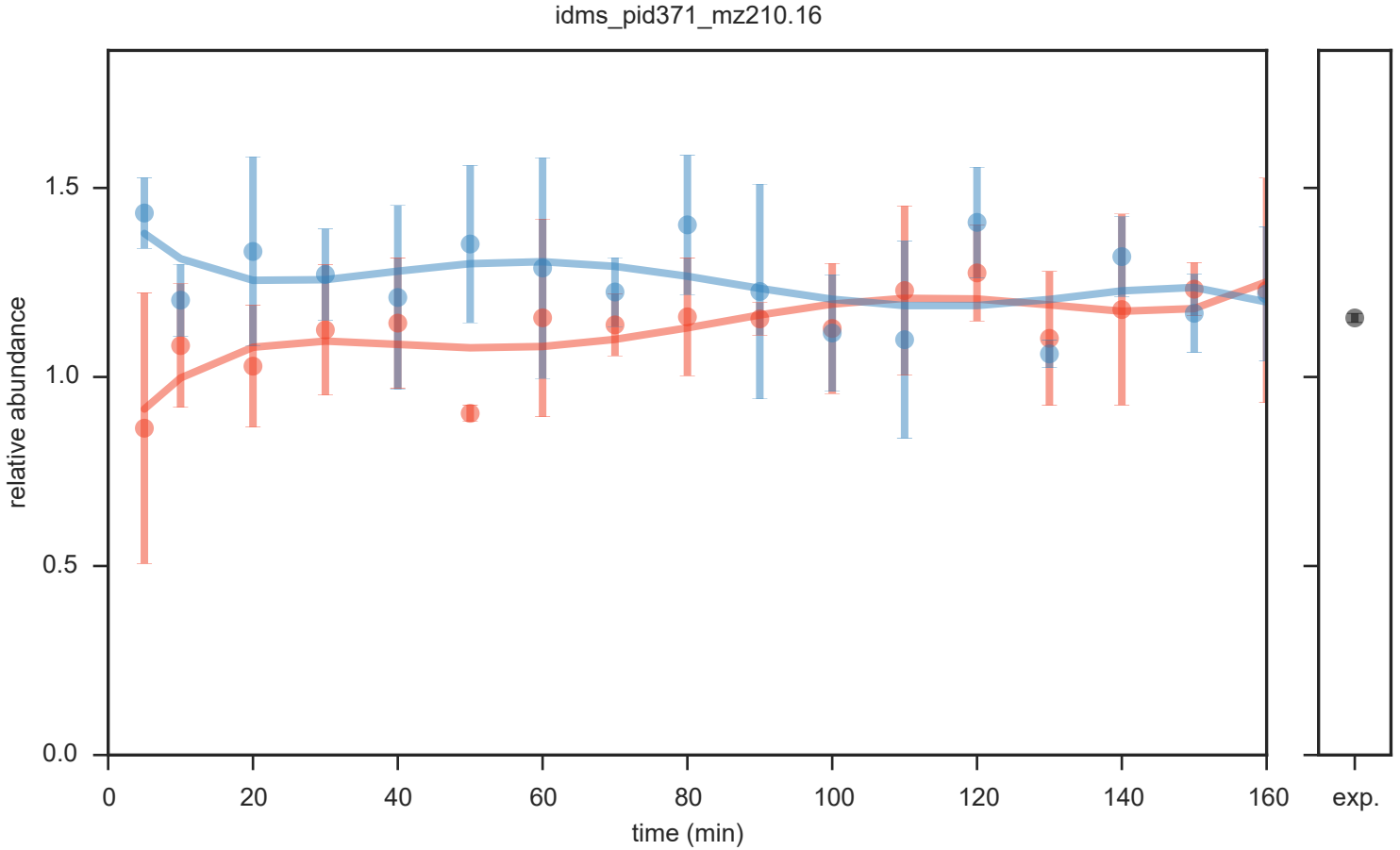

idms_pid323_mz141.13
relative abundance
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.

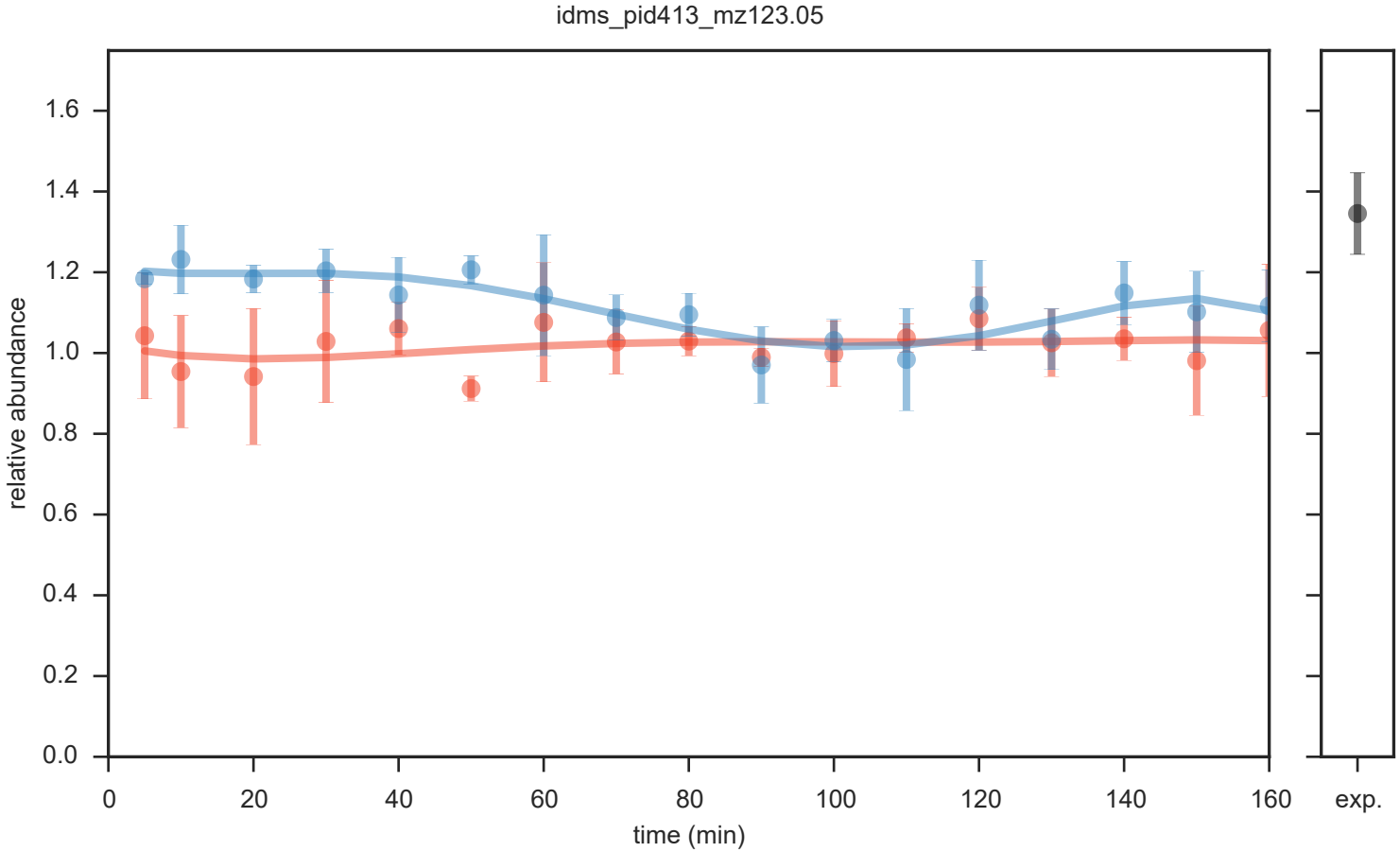

idms_pid339_mz132.11
relative abundance
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
0
20
40
60
80
100
120
140
160
time (min)
exp.

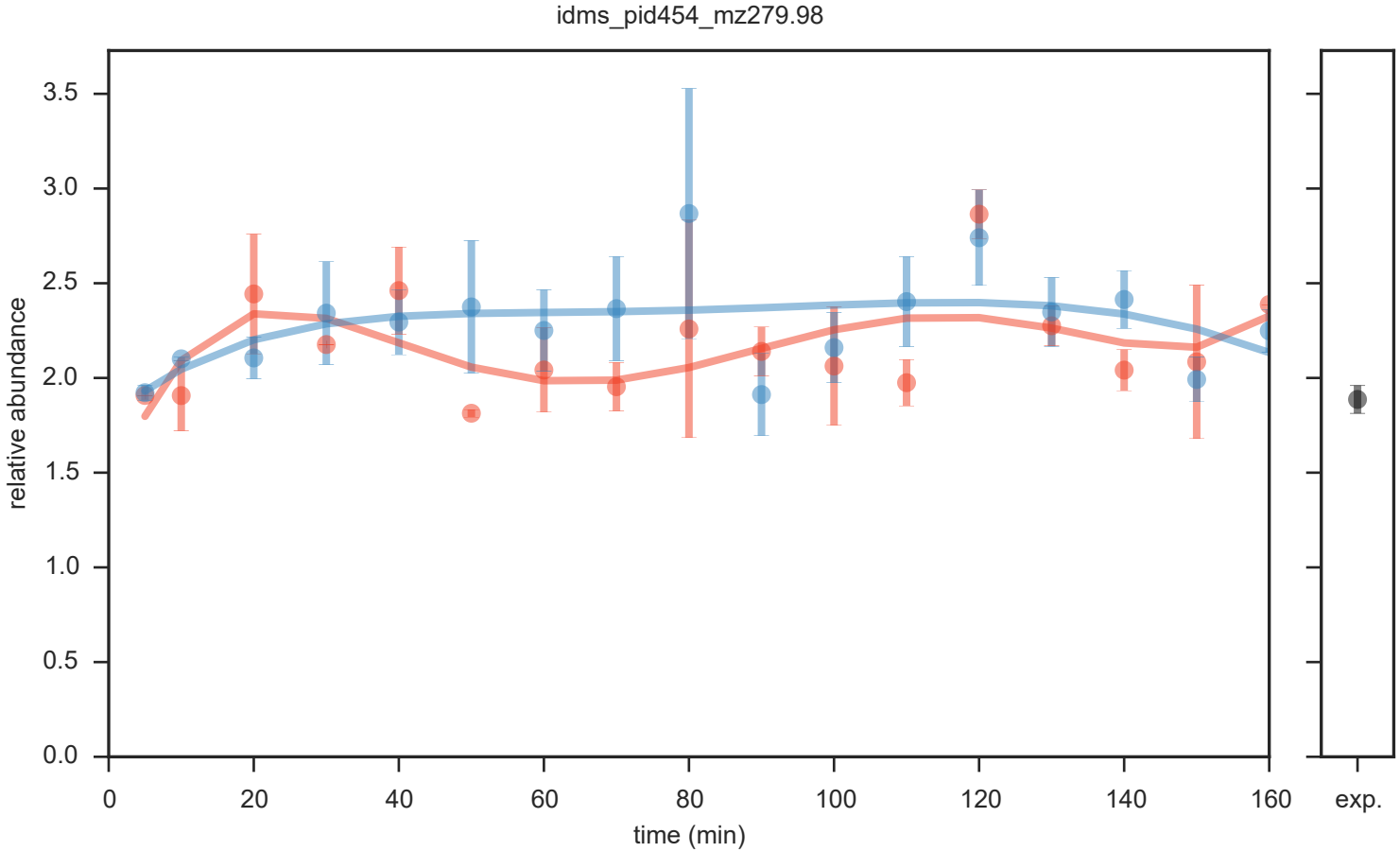

idms_pid343_mz280.27
relative abundance
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.

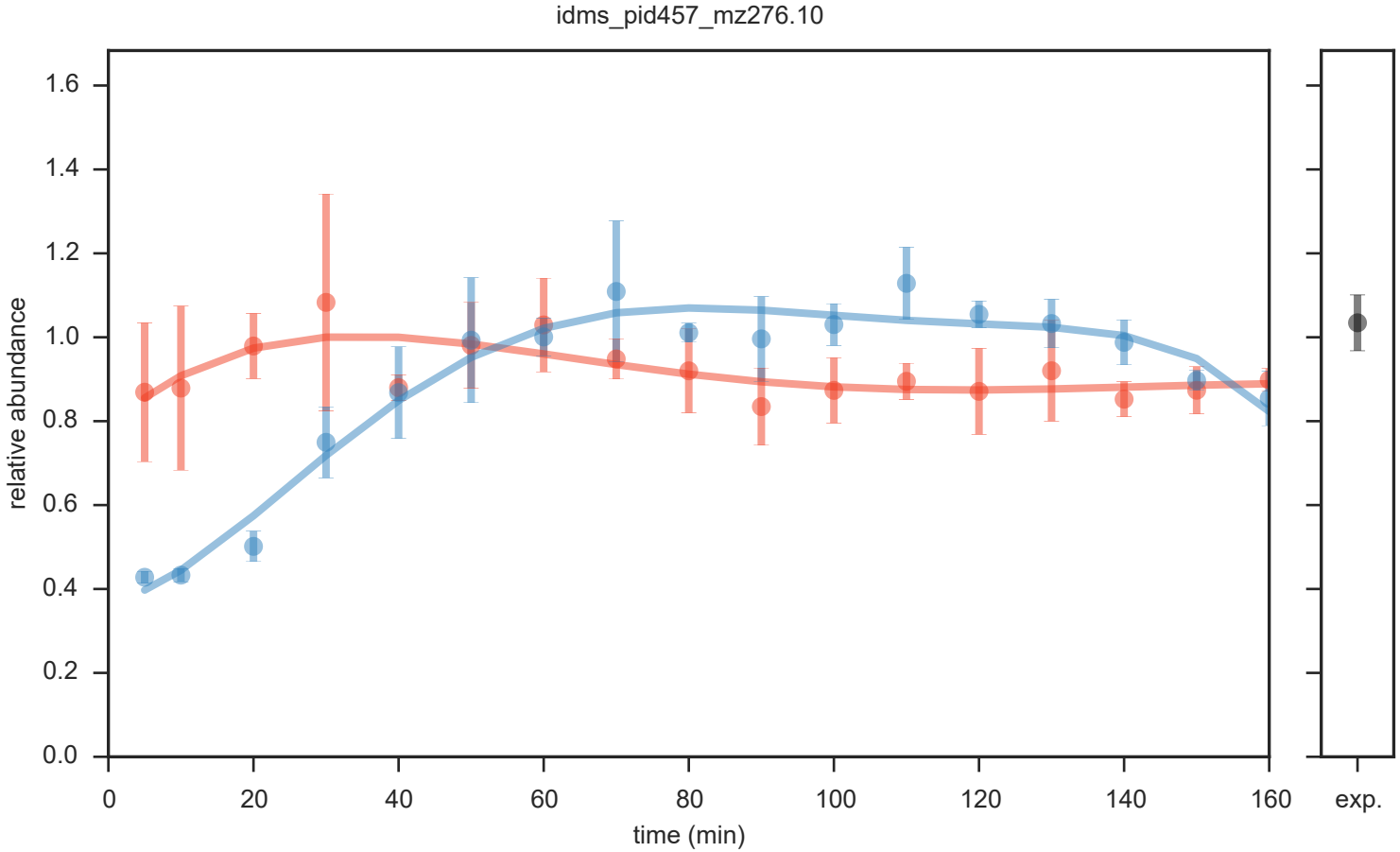

idms_pid355_mz86.096
relative abundance
0
2
4
6
8
10
0
20
40
60
80
100
120
140
160
time (min)
exp.

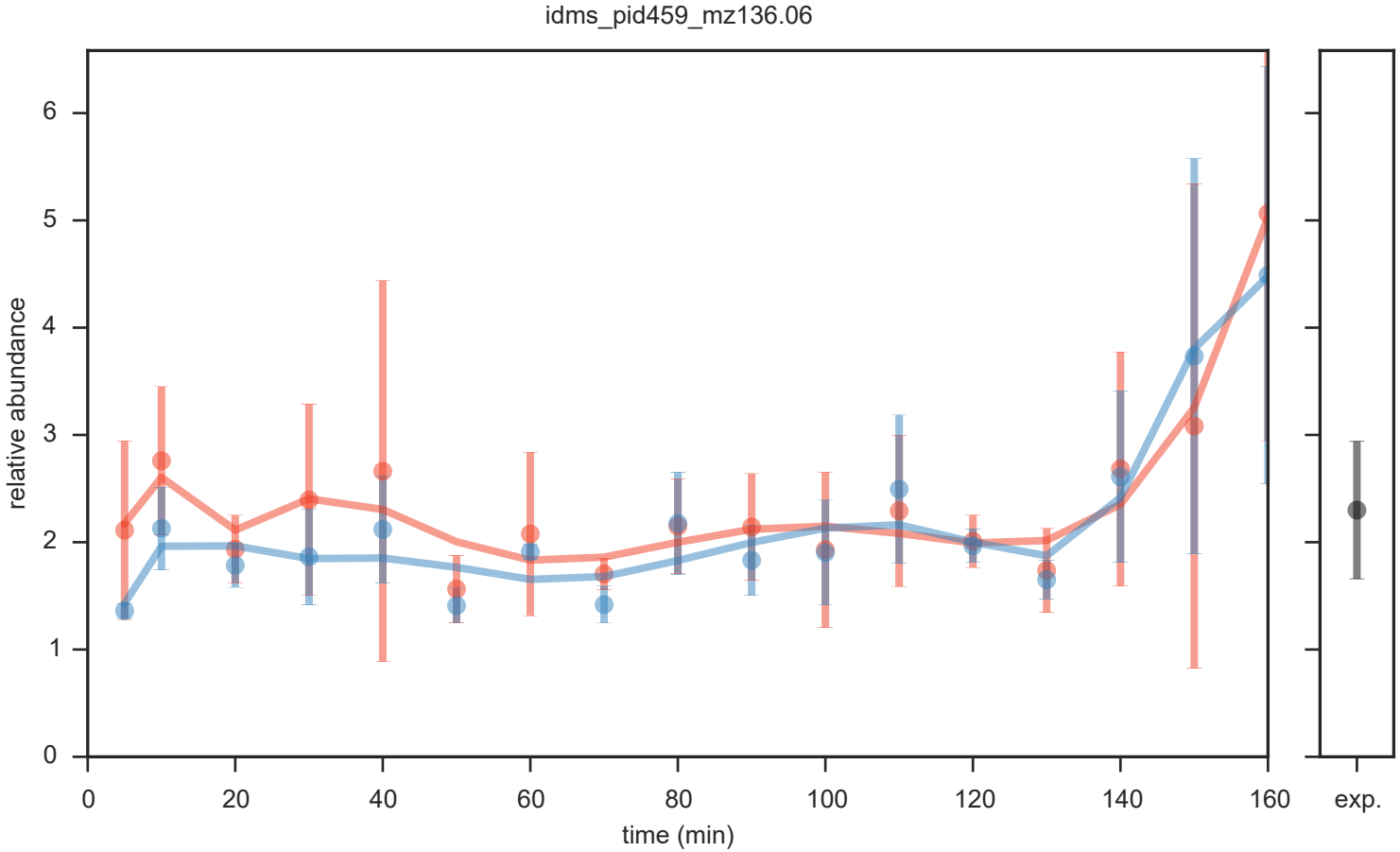

idms_pid360_mz256.10
relative abundance
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
0
20
40
60
80
100
120
140
160
time (min)
exp.

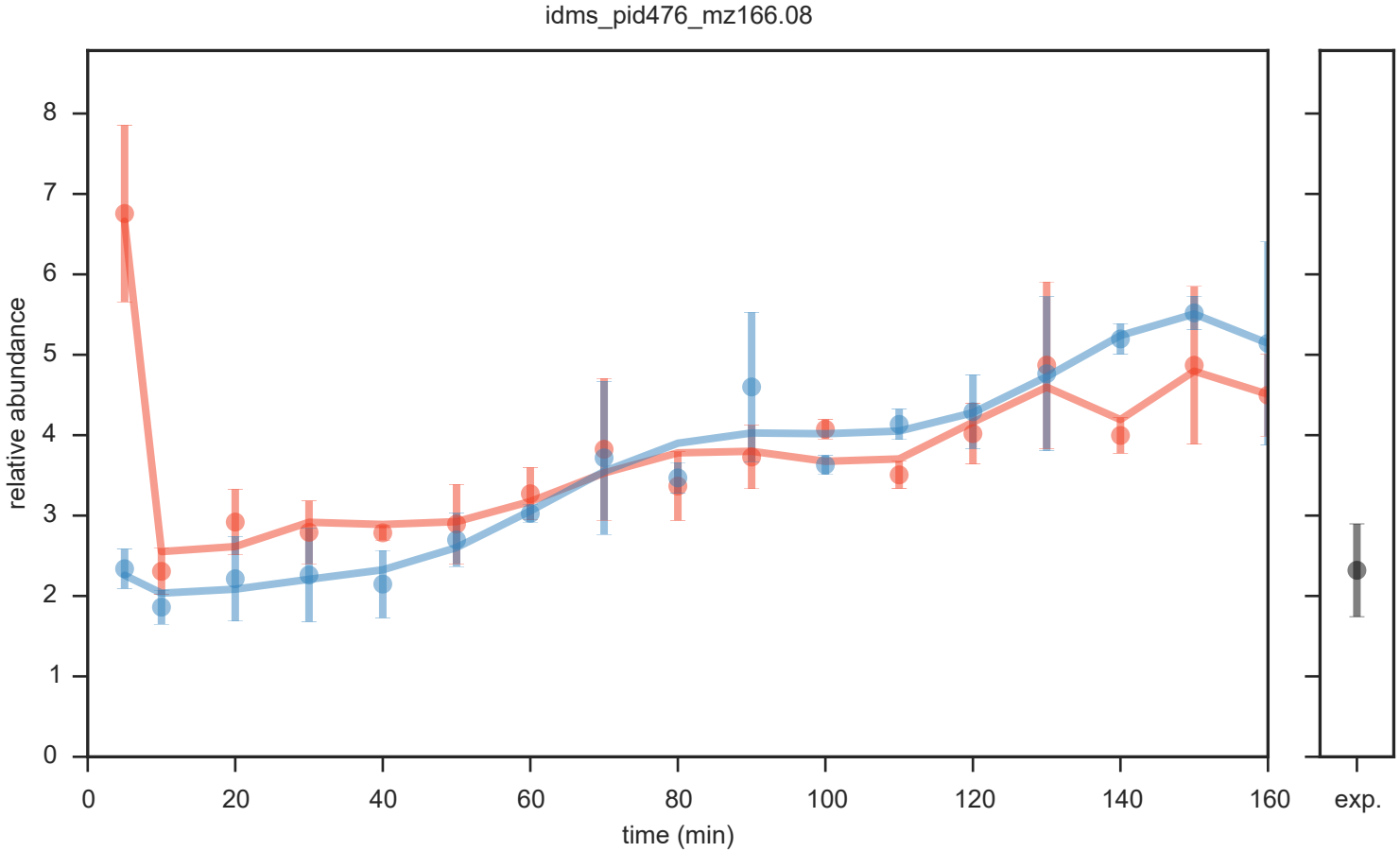

idms_pid371_mz210.16
relative abundance
0.0
0.5
1.0
1.5
0
20
40
60
80
100
120
140
160
time (min)
exp.

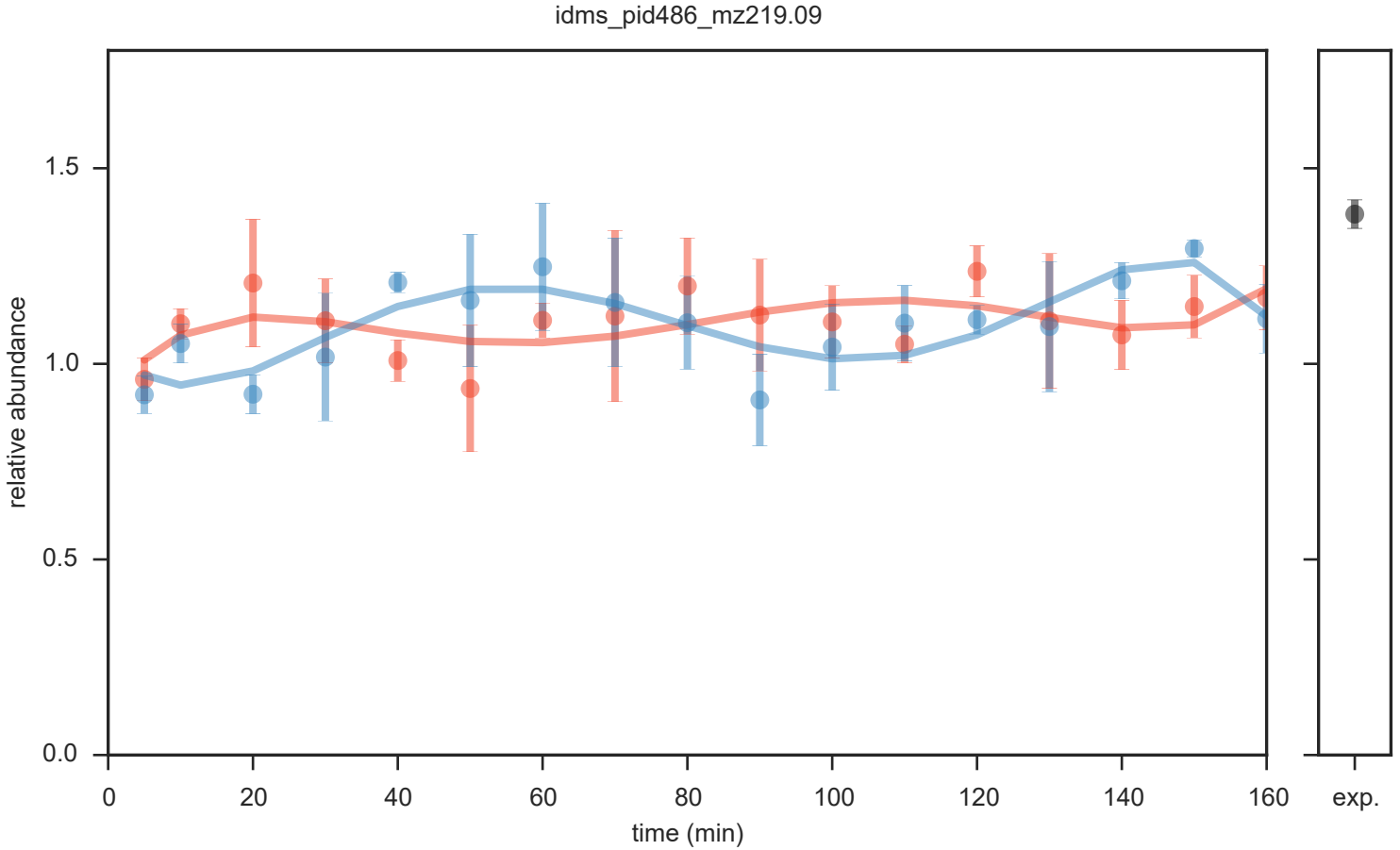

idms_pid413_mz123.05
relative abundance
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
0
20
40
60
80
100
120
140
160
time (min)
exp.

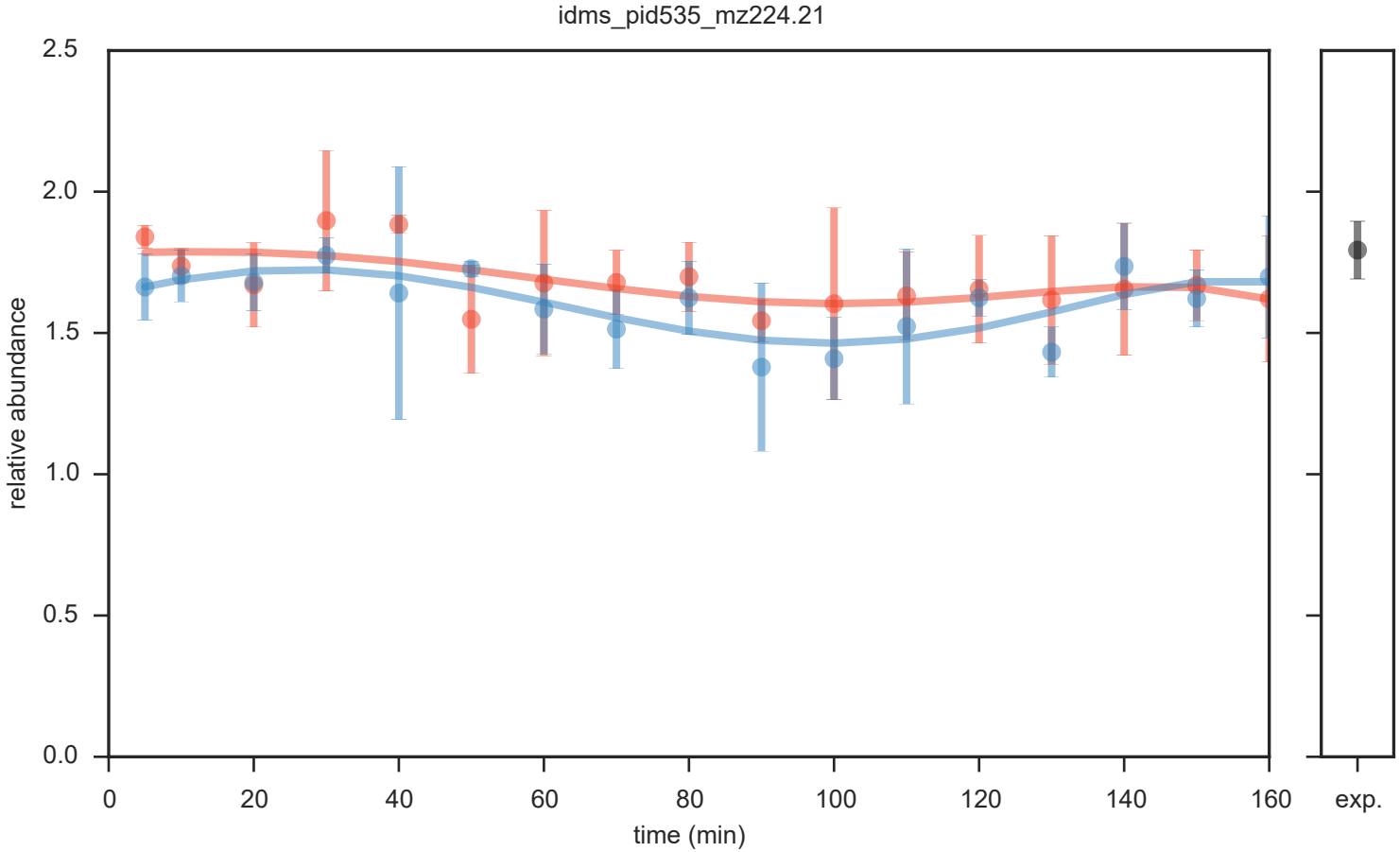

idms_pid454_mz279.98
relative abundance
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
0
20
40
60
80
100
120
140
160
time (min)
exp.

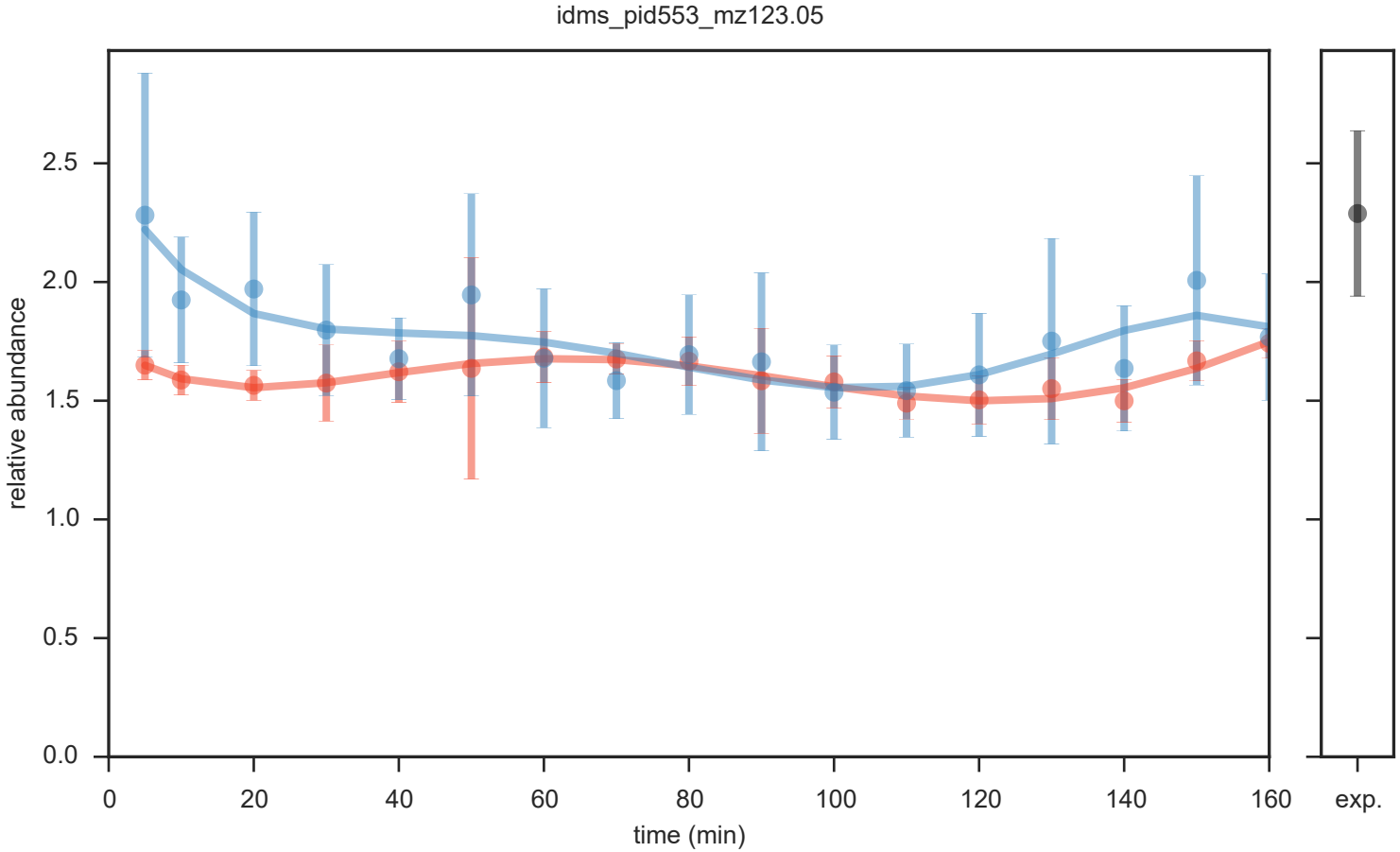

idms_pid457_mz276.10
relative abundance
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
0
20
40
60
80
100
120
140
160
time (min)
exp.

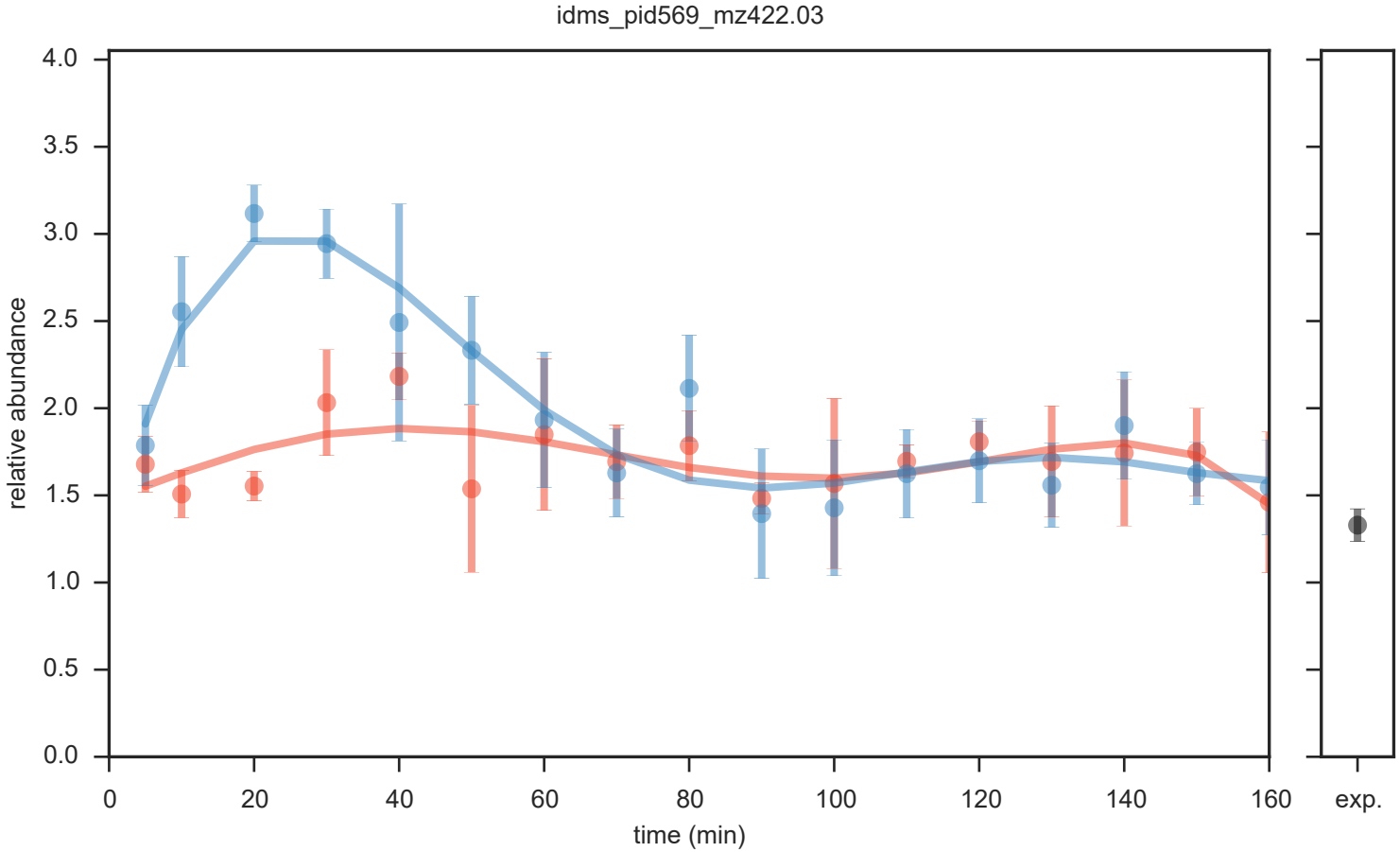

idms_pid459_mz136.06
relative abundance
0
1
2
3
4
5
6
0
20
40
60
80
100
120
140
160
time (min)
exp.

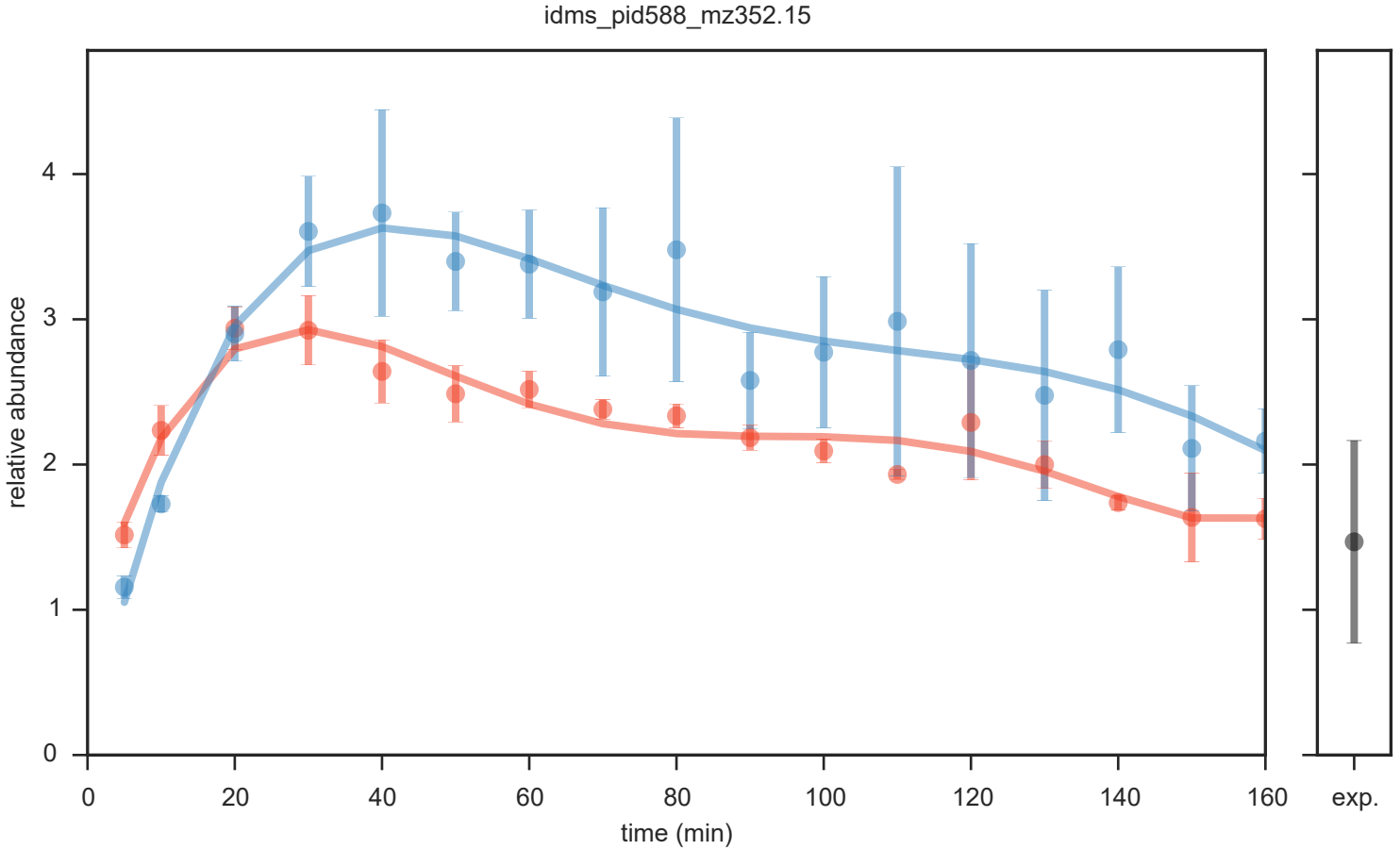

idms_pid476_mz166.08
relative abundance
0
1
2
3
4
5
6
7
8
0
20
40
60
80
100
120
140
160
time (min)
exp.

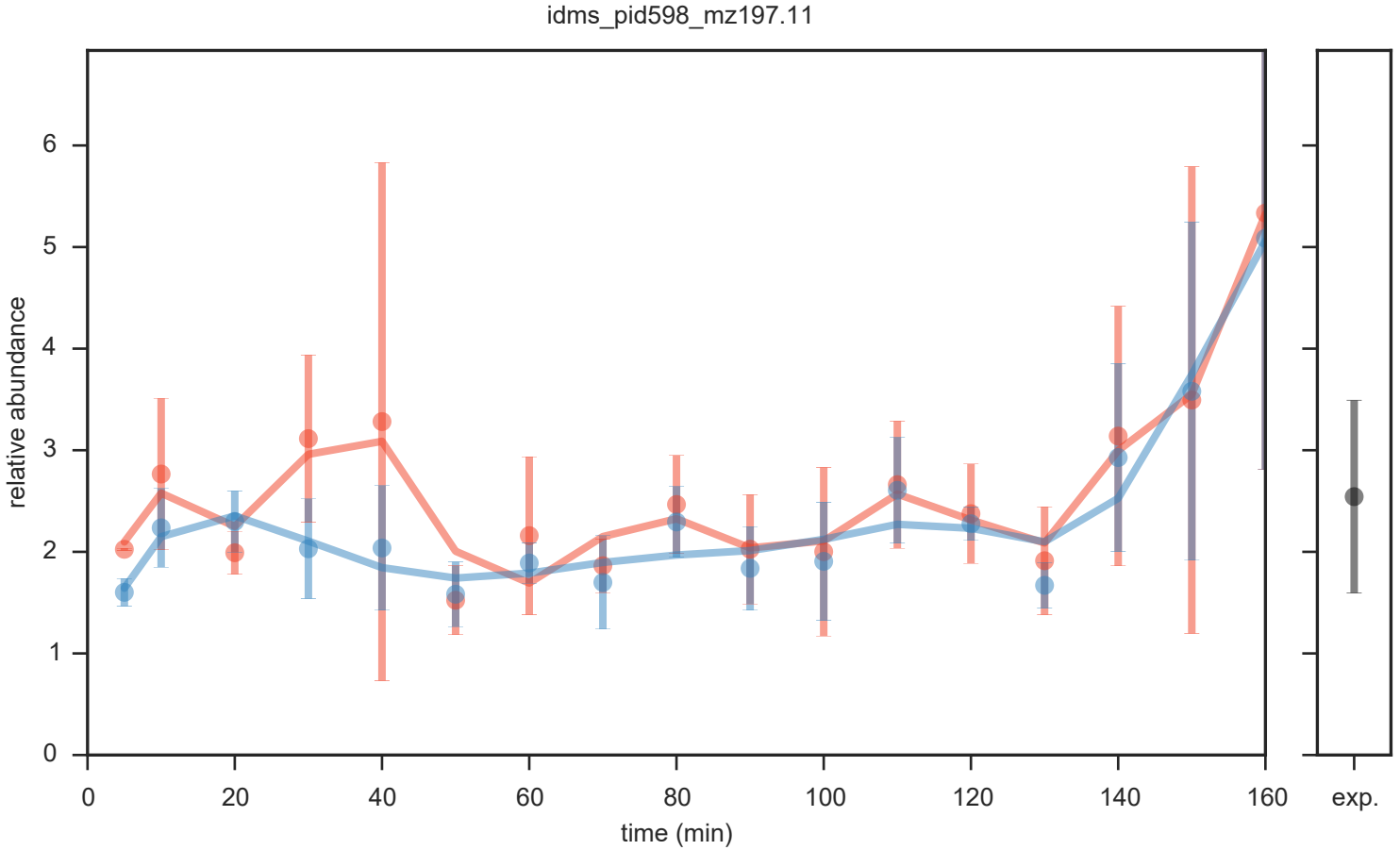

idms_pid486_mz219.09
relative abundance
0.0
0.5
1.0
1.5
0
20
40
60
80
100
120
140
160
time (min)
exp.

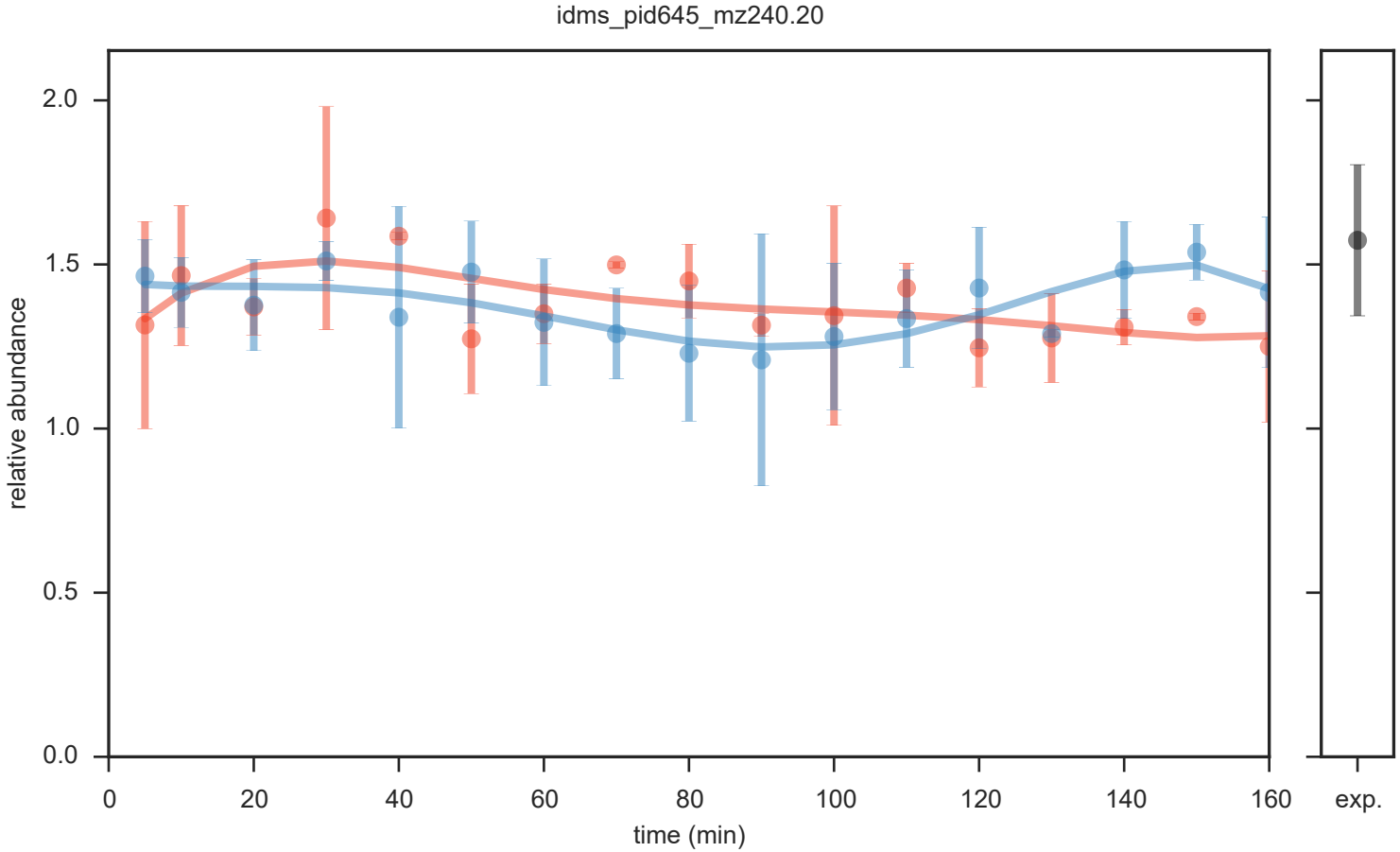

idms_pid535_mz224.21
relative abundance
2.5
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.

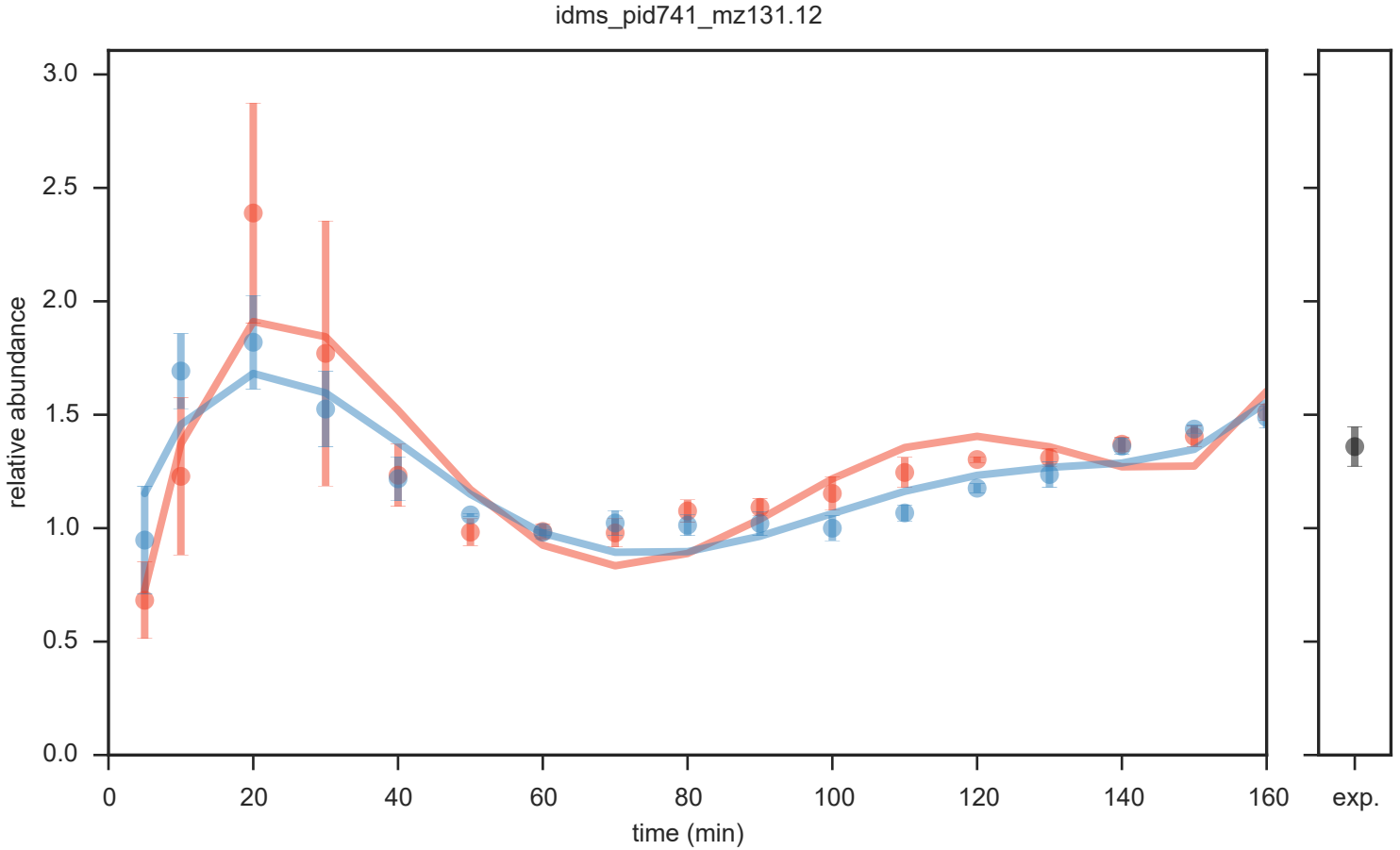

idms_pid553_mz123.05
relative abundance
0.0
0.5
1.0
1.5
2.0
2.5
0
20
40
60
80
100
120
140
160
time (min)
exp.

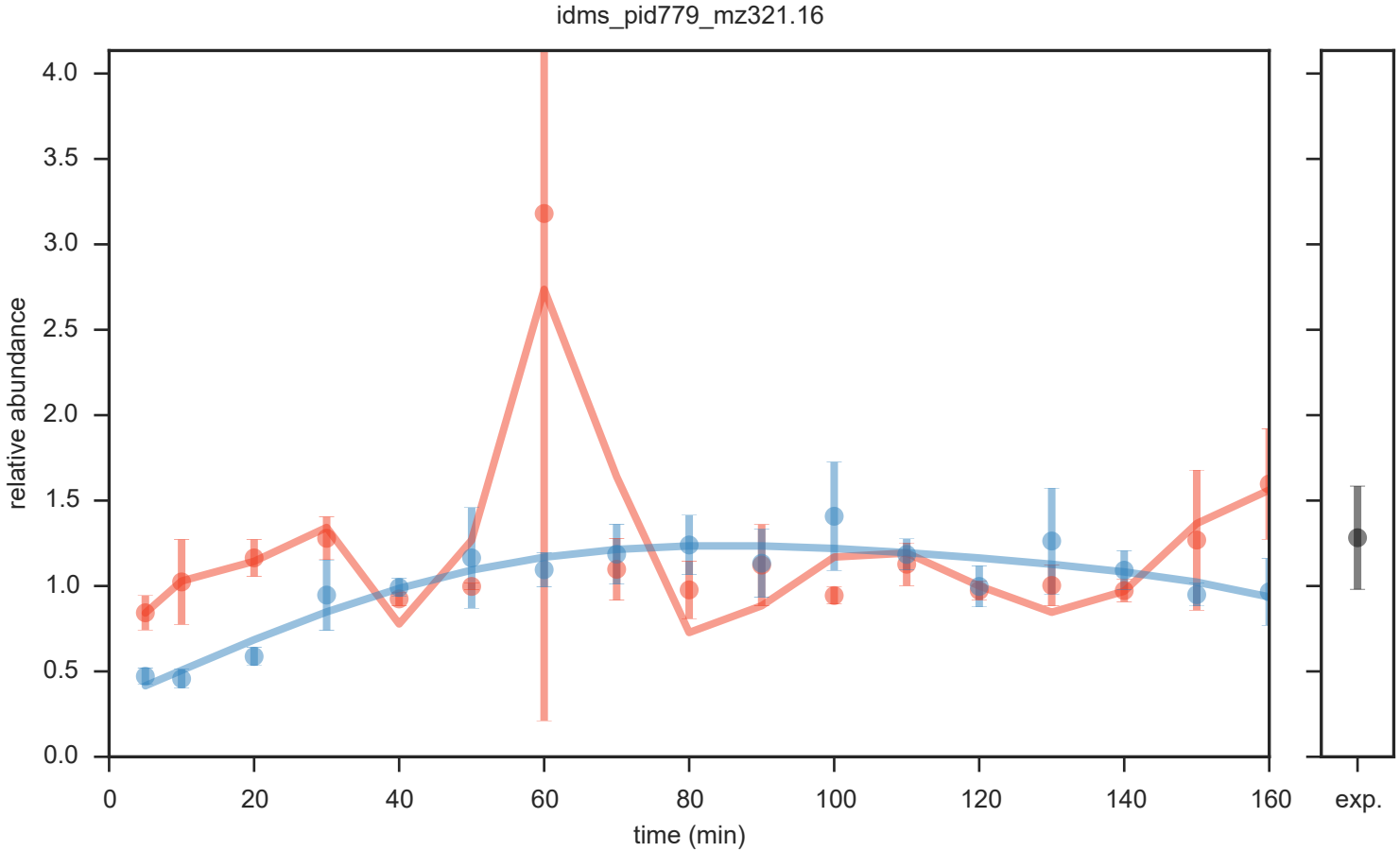

idms_pid569_mz422.03
relative abundance
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid588_mz352.15
relative abundance
0
1
2
3
4
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid598_mz197.11
relative abundance
0
1
2
3
4
5
6
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid645_mz240.20
relative abundance
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid741_mz131.12
relative abundance
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
20
40
60
80
100
120
140
160
time (min)
exp.


idms_pid779_mz321.16
relative abundance
time (min)
exp.
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0
20
40
60
80
100
120
140
160