A
Expression cassettes
empty vector (EV)
Tb-cyto
isp3
HA Turboid
Tb-IMC
isp3
HA Turboid
IMC targeting peptide (ISP1 N20)
Episomal expression of ligases in 17XNL parasites
Cytosol (cyto)
IMC
Proximal biotinylation with biotin incubation
IMC
cyto
B
kDa
1 2 3
40-
35-
HA
70-
BiP
1. EV
2. Tb-cyto
3. Tb-IMC
C
Tb-IMC
Tb-IMC(HA)
GAP45
Merge
Hoechst
D
EV
Tb-cyto
Tb-IMC
biotin
-
+
SA-HRP
E
biotin(-)
biotin(+)
BF/Hoechst
TurboID(HA)
SA-488
Tb-cyto
Tb-IMC
F
Tb-IMC
input
pull-down
kDa
Fold change
[pull-down / input]
40-
35-
HA (Tb-IMC) 4.03
40- GAP45 (IMC) 2.24
40- MSP1 (PM) 0.01
20- Erd2 (Golgi) 0.01
70- BiP (ER) 0.12
15- H3 (Nucleus) 0.02
G
Tb-cyto
Tb-IMC
rep-1 rep-2 rep-3 rep-1 rep-2 rep-3
Tb-cyto rep-1 1.00 0.95 0.95 0.74 0.77 0.77
Tb-cyto rep-2 0.95 1.00 0.97 0.72 0.75 0.75
Tb-cyto rep-3 0.95 0.97 1.00 0.72 0.75 0.74
Tb-IMC rep-1 0.74 0.72 0.72 1.00 0.95 0.95
Tb-IMC rep-2 0.77 0.75 0.75 0.95 1.00 0.97
Tb-IMC rep-3 0.77 0.75 0.74 0.95 0.97 1.00
Pearson's coefficient
0.7 0.8 0.9 1
H
Tb-cyto
Tb-IMC
rep-1 rep-2 rep-3 rep-1 rep-2 rep-3
Transcription profile
R T S
2374 hit proteins from MS
488 proteins enriched
300 proteins with peak transcription at schizont
peptide intensity
-2 -1 0 1 2
row z-score
transcription
-1 0 1
row z-score