

Table 1. Concentrations and timing of assembly of actin patch components

| Common name | Protein name | Concentration in cytoplasm (μM) ^a | Fraction in cytoplasm (%) ^a | Mean peak no. of molecules per patch ^b | No. of seconds to | | | Lifetime (s) ^b | Total distance (μm) ^b |
|-----------------------------|--------------------|---|--|---|-----------------------|-----------------------------|--------------------------------|---------------------------|---|
| | | | | | Peak (s) ^b | Appearance (s) ^b | Disappearance (s) ^b | | |
| Clathrin heavy chain | Chc1p | 0.8 | 26 | 40 (± 10) | | -100 (± 27) | <+10 | 110 (± 29) | 0.3 (± 0.1) |
| Clathrin light chain | Clc1p | 0.7 | 29 | 40 (± 10) | | -105 (± 10) | <+10 | 115 (± 10) | 0.1 (± 0.1) |
| Sla2 (~Hip1R) | End4p | 1.0 | 72 | 160 (± 20) | -2 (± 4) | -32 (± 7) | +9 (± 3) | 41 (± 8) | 0.7 (± 0.3) |
| Pan1 (~Eps15) | Pan1p | 1.0 | 59 | 260 (± 60) | 0 (± 3) | -32 (± 8) | +9 (± 4) | 41 (± 8) | 0.6 (± 0.3) |
| WASP ^c | Wsp1p | 4.0 | 94 | 230 (± 70) | -2 (± 1) | -10 (± 2) | +2 (± 1) | 12 (± 2) | 0.2 (± 0.1) |
| Verprolin | Vrp1p | 1.0 | 87 | 140 (± 10) | -3 (± 3) | -9 (± 5) | +2 (± 2) | 11 (± 2) | 0.2 (± 0.1) |
| Myosin-1 | Myo1p | 3.3 | 84 | 400 (± 90) | -2 ^d | -9 (± 2) ^d | +5 (± 2) ^d | 14 (± 2) | 0 ^d |
| Arp2/3 complex ^c | Arp2 | 2.3 | 78 | 320 (± 100) | 0 (± 2) | -13 (± 2) | +13 (± 3) | 26 (± 2) | 1.3 (± 0.2) |
| | Arp3 | 3.6 | 86 | 320 (± 50) | -1 (± 3) | -15 (± 2) | +11 (± 1) | 26 (± 2) | 0.8 (± 0.2) |
| | ARPC5 | 1.3 | 67 | 320 (± 60) | -3 (± 2) | -15 (± 2) | +11 (± 2) | 26 (± 3) | 1.2 (± 0.3) |
| Fimbrin | Fim1p | 3.7 | 68 | 910 (± 170) | -1 (± 1) | -7 (± 1) | +15 (± 3) | 22 (± 2) | 1.0 (± 0.2) |
| Capping protein | Acp2p | 0.8 | 66 | 230 (± 60) | 0 (± 3) | -9 (± 2) | +11 (± 2) | 20 (± 3) | 0.7 (± 0.3) |
| App1p | App1p | 1.2 | 76 | 150 (± 50) | 0 (± 2) | -7 (± 1) | +8 (± 2) | 15 (± 2) | 0.7 (± 0.2) |
| Coronin | Crm1p | 3.1 | 73 | 490 (± 180) | +5 (± 3) | -6 (± 2) | +15 (± 3) | 21 (± 3) | 1.3 (± 0.5) |
| Twinfilin | Twf1p | 1.4 | 65 | 210 (± 40) | +1 (± 2) | -7 (± 2) | +10 (± 4) | 17 (± 4) | 0.8 (± 0.3) |
| Actin, ^{c,e} 6% | Actin ^h | 1.3 | 65 | 450 (± 90) | +1 (± 2) | -9 (± 2) | +10 (± 2) | 19 (± 2) | 0.7 (± 0.2) |

See Tables S2 and S3 for more details.

^a For most proteins the fraction in the cytoplasm was calculated from Z-series of YFP images of entire cells at a single time point. For twinfilin and actin the cytoplasmic fractions were calculated from Z-series of GFP images. For clathrin heavy and light chains, twinfilin and actin, the cytoplasmic fractions were calculated from the ratio of average mean cytoplasmic fluorescence to mean whole cell fluorescence. For all other proteins, the cytoplasmic fraction for a cell was 1 minus the ratio of total fluorescence in patches to total cell fluorescence (see Table S3).

^b For most proteins, we measured the peak number of molecules per patch, time of peak, appearance and disappearance, total lifetime and distance moved using GFP in time series of Z-stacks spanning entire cells and using YFP in time series in single confocal sections (see Table S2 for comparison). The values in this Table are from GFP measurements in Z-stacks for all proteins except clathrin, for which the values are from YFP measurements in single sections. Measurements of times of appearance, disappearance, and total distance moved were restricted to moving patches.

^c These fluorescent proteins are not fully functional; the text explains their minor defects.

^d For Myo1p, time of appearance and disappearance were calculated after aligning Myo1p peak to Wsp1p peak.

^e Expressed at the level representing 6% of total actin.