

Table S1. Mass cytometry antibody panel and their corresponding bound isotopes

| Marker | Clone | Isotope |
|---------------|--------------|----------------|
| HLA-DR | Tu36 | 112 Nd |
| CD3 | UCHT1 | 142 Nd |
| CD4 | SK3 | 143 Nd |
| CD19 | HIB19 | 149 Sm |
| CD14 | M5E2 | 150 Nd |
| Nucleoprotein | AA5H | 151 Eu |
| IFN α | LT27:295 | 153 Eu |
| CD123 | 6H6 | 167 Er |
| MIP-1 β | D21-1351 | 168 Er |
| CD69 | FN50 | 169 Tm |
| IP-10 | J034D6 | 170 Yb |

Table S2. Frequency and Mean Signal Intensity (MSI) of monocytes from pregnant and non-pregnant women expressing activation markers and cytokine/chemokines in response to pH1N1 and H3N2 compared to unstimulated conditions. Statistical differences are represented by * $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$ and **** $P < 0.0001$ for differences between unstimulated and pH1N1 or H3N2 infection conditions.

**Non pregnant women
Cell frequency**

| Monocytes | NS | H1N1 | H3N2 |
|------------------------------|-----------------|----------------------|----------------------|
| % Monocytes | 6.73 +/- 6.87 | 3.22 +/- 3.15 | 2.68 +/- 3.12 |
| % FluNP ⁺ | 1.21 +/- 1.65 | **** 14.03 +/- 10.56 | **** 30.30 +/- 14.65 |
| % CD69 ⁺ | 0.79 +/- 1.06 | **** 5.86 +/- 5.75 | **** 3.59 +/- 3.24 |
| % HLA-DR ^{high} | 12.92 +/- 12.26 | **** 45.89 +/- 25.47 | * 21.49 +/- 15.30 |
| % MIP-1 β ⁺ | 11.16 +/- 15.70 | **** 42.13 +/- 27.13 | * 16.69 +/- 13.01 |
| % IP-10 ⁺ | 1.01 +/- 0.90 | **** 18.65 +/- 19.93 | **** 16.13 +/- 10.03 |
| % IFN α ⁺ | 0.64 +/- 0.47 | ** 1.35 +/- 0.84 | * 1.02 +/- 0.65 |

MSI

| Monocytes | NS | H1N1 | H3N2 |
|----------------------------|-----------------|-----------------------|---------------------|
| CD69 ⁺ | 14.38 +/- 9.36 | ****33.79 +/- 15.41 | ***24.55 +/- 9.86 |
| HLA-DR ^{high} | 81.59 +/- 39.85 | ****197.72 +/- 103.12 | 99.86 +/- 49.15 |
| MIP-1 β ⁺ | 59.62 +/- 82.27 | ****312.58 +/- 369.33 | 73.97 +/- 83.20 |
| IP-10 ⁺ | 2.07 +/- 2.20 | ****38.32 +/- 55.85 | ****28.54 +/- 35.00 |
| IFN α ⁺ | 3.71 +/- 1.81 | **8.00 +/- 6.27 | 5.10 +/- 2.71 |

**Pregnant women
Cell frequency**

| Monocytes | NS | H1N1 | H3N2 |
|------------------------------|-----------------|----------------------|----------------------|
| % Monocytes | 9.71 +/- 5.94 | 2.68 +/- 3.33 | 4.26 +/- 3.88 |
| % FluNP ⁺ | 2.6 +/- 3.98 | **** 11.74 +/- 9.18 | **** 28.94 +/- 13.06 |
| % CD69 ⁺ | 0.78 +/- 1.68 | **** 11.00 +/- 11.15 | **** 8.52 +/- 8.37 |
| % HLA-DR ^{high} | 29.99 +/- 22.57 | **** 64.90 +/- 22.92 | * 38.07 +/- 21.50 |
| % MIP-1 β ⁺ | 5.64 +/- 6.07 | **** 44.38 +/- 32.13 | **** 15.70 +/- 7.74 |
| % IP-10 ⁺ | 1.02 +/- 0.88 | **** 35.46 +/- 23.44 | **** 38.60 +/- 14.40 |
| % IFN α ⁺ | 0.79 +/- 0.61 | ** 1.65 +/- 1.12 | ** 1.27 +/- 0.75 |

MSI

| Monocytes | NS | H1N1 | H3N2 |
|----------------------------|------------------|-----------------------|---------------------|
| CD69 ⁺ | 11.08 +/- 5.50 | ****44.23 +/- 23.27 | ****34.79 +/- 18.92 |
| HLA-DR ^{high} | 136.51 +/- 76.17 | ****316.40 +/- 138.96 | 165.84 +/- 85.19 |
| MIP-1 β ⁺ | 29.89 +/- 20.39 | ****366.36 +/- 444.62 | ****59.85 +/- 35.38 |
| IP-10 ⁺ | 1.62 +/- 1.18 | ****87.03 +/- 11.41 | ****90.87 +/- 84.54 |
| IFN α ⁺ | 3.84 +/- 1.70 | ****9.63 +/- 6.95 | **6.24 +/- 2.71 |

Table S3. Frequency and Mean Signal Intensity (MSI) of pDCs from pregnant and non-pregnant women expressing activation markers and cytokine/chemokines in response to pH1N1 and H3N2 compared to unstimulated conditions. Statistical differences are represented by * $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$ and **** $P < 0.0001$ for differences between unstimulated and pH1N1 or H3N2 infection conditions.

**Non pregnant women
Cell frequency**

| pDCs | NS | H1N1 | H3N2 |
|------------------------------|---------------|----------------------|----------------------|
| % pDCs | 0.32 +/- 0.26 | 0.82 +/- 0.76 | 0.74 +/- 0.61 |
| % FluNP ⁺ | 1.27 +/- 2.27 | ** 4.06 +/- 3.90 | **** 13.54 +/- 6.93 |
| % CD69 ⁺ | 0.41 +/- 0.95 | **** 28.72 +/- 20.13 | **** 16.97 +/- 13.28 |
| % HLA-DR ^{high} | 0.61 +/- 1.12 | **** 9.72 +/- 9.25 | ** 2.20 +/- 2.61 |
| % MIP-1 β ⁺ | 0.92 +/- 1.15 | **** 33.74 +/- 15.21 | **** 20.91 +/- 13.13 |
| % IP-10 ⁺ | 0.82 +/- 0.89 | **** 15.83 +/- 13.85 | **** 13.76 +/- 13.96 |
| % IFN α ⁺ | 1.17 +/- 1.48 | **** 12.72 +/- 14.86 | **** 7.15 +/- 8.67 |

MSI

| pDCs | NS | H1N1 | H3N2 |
|----------------------------|-----------------|-----------------------|----------------------|
| CD69 ⁺ | 8.61 +/- 6.78 | ****131.11 +/- 106.87 | ****68.83 +/- 54.54 |
| HLA-DR ^{high} | 22.29 +/- 22.29 | ****75.10 +/- 39.13 | *35.90 +/- 20.19 |
| MIP-1 β ⁺ | 31.60 +/- 31.60 | ****159.90 +/- 70.94 | ****111.49 +/- 73.20 |
| IP-10 ⁺ | 1.86 +/- 1.37 | ****28.22 +/- 36.24 | ****25.44 +/- 39.54 |
| IFN α ⁺ | 4.29 +/- 2.24 | ****105.71 +/- 151.58 | ****65.78 +/- 115.69 |

**Pregnant women
Cell frequency**

| pDCs | NS | H1N1 | H3N2 |
|------------------------------|---------------|----------------------|----------------------|
| % pDCs | 0.55 +/- 0.34 | 1.71 +/- 1.78 | 1.05 +/- 0.77 |
| % FluNP ⁺ | 2.90 +/- 4.38 | ** 8.67 +/- 10.43 | **** 12.37 +/- 9.72 |
| % CD69 ⁺ | 0.49 +/- 1.01 | **** 36.40 +/- 17.99 | **** 20.11 +/- 12.65 |
| % HLA-DR ^{high} | 5.44 +/- 5.95 | *** 20.74 +/- 15.49 | 5.27 +/- 7.40 |
| % MIP-1 β ⁺ | 4.44 +/- 3.55 | **** 49.74 +/- 19.83 | **** 30.25 +/- 7.69 |
| % IP-10 ⁺ | 0.89 +/- 0.81 | **** 25.69 +/- 16.18 | **** 22.26 +/- 15.17 |
| % IFN α ⁺ | 0.86 +/- 1.23 | **** 17.01 +/- 14.69 | **** 10.49 +/- 7.46 |

MSI

| pDCs | NS | H1N1 | H3N2 |
|----------------------------|-----------------|-----------------------|-----------------------|
| CD69 ⁺ | 7.10 +/- 6.58 | ****177.47 +/- 123.21 | ****84.98 +/- 62.78 |
| HLA-DR ^{high} | 37.56 +/- 29.54 | ****114.33 +/- 66.73 | 46.16 +/- 33.55 |
| MIP-1 β ⁺ | 30.25 +/- 9.14 | ****175.79 +/- 79.95 | ****99.40 +/- 24.87 |
| IP-10 ⁺ | 1.60 +/- 0.96 | ****47.60 +/- 54.22 | ****36.27 +/- 42.73 |
| IFN α ⁺ | 5.17 +/- 2.19 | ****247.58 +/- 294.36 | ****113.76 +/- 113.04 |